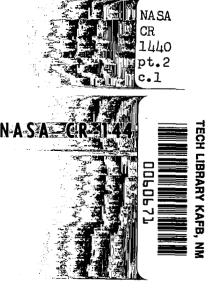
# NASA CONTRACTOR Report





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# SIMPLIFIED PROCEDURES FOR ESTIMATING FLAPWISE BENDING MOMENTS ON HELICOPTER ROTOR BLADES

Part II - Tables

by Anton J. Landgrebe

Prepared by
UNITED AIRCRAFT CORPORATION
East Hartford, Conn.
for Langley Research Center

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION • WASHINGTON, D. C. • OCTOBER 1969

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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# SIMPLIFIED PROCEDURES FOR ESTIMATING FLAPWISE BENDING MOMENTS ON HELICOPTER ROTOR BLADES

PART II - TABLES

By Anton J. Landgrebe United Aircraft Research Laboratories

#### SUMMARY

Procedures and charts for estimating flapwise bending moments on helicopter rotor blades were presented in Part I\*. As a supplement, tables are presented herein of the bending moment transfer coefficient information presented in chart form in Part I. Tabulated transfer coefficients are presented for each independent parameter of blade bending moment for nine combinations of mass and frequency parameter, and six advance ratios (0.25 to 1.4). Additional information, not presented in Part I, includes coefficients for the fourth and fifth harmonics for the low advance ratios (0.25 to 0.5), and six blade stations, instead of two, for the hingeless blade coefficients.

#### INTRODUCTION

Charts for estimating flapwise bending moments on helicopter rotor blades were presented in Part I. These charts consist of transfer coefficients relating independent rotor parameters to harmonics of bending moment for a wide range of blade design parameters and operating conditions of interest. Detailed procedures for using the transfer coefficients in conjunction with the performance charts of NASA CR-114 were described and illustrated with sample calculations. While the charts provide sufficient information and accuracy for most bending moment or bending stress requirements, certain applications may require a greater degree of accuracy than that obtainable from the charts. This may be particularly true for those designs or flight conditions where moment components contributed by the various independent parameters are of such a size that the net bending moment on the blade forms a small difference of large numbers. Therefore, an accurate digital representation of the moment transfer coefficients used for the charts of Part I are presented herein. In addition to the data presented in Part I, the tables include the fourth and fifth harmonic transfer coefficients for the low advance ratios (0.25 to 0.5) and four additional blade stations for the hingeless blade charts.

<sup>\*</sup>See NASA CR-1440, 1969.

#### SYMBOLS

n (or N)

Cosine component of first harmonic cyclic pitch; coefficient of Ale -cos  $\psi$  term in Fourier series expansion of the blade pitch angle with respect to the rotor shaft, deg Sine component of first harmonic cyclic pitch; coefficient of BIE -sin  $\psi$  term in Fourier series expansion of the blade pitch angle with respect to the rotor shaft, deg Cosine component of nth harmonic c(or C) Co Blade chord at reference station, ft Young's modulus of elasticity. lb/in.2 Ε Frequency parameter,  $EI_0/m_0(\Omega R)^2 R^2$ FΡ Flapwise section area moment of inertia. in.4 Ι Flapwise section area moment of inertia at reference station, Io in.4 Mass per unit span at reference station, slug/ft mo Flapwise bending moment, positive when upper surface is in M compression, in.-lb Transfer function relating nondimensional bending moment to  $\mathbf{M}_{(\cdot)}$ independent parameter ( Transfer coefficient relating the nth cosine or sine harmonic of nondimensional bending moment to independent parameter ( ) where ( ) can represent  $\theta_{75}$ ,  $\theta_{1}$ ,  $\lambda_{C}$ , or  $\lambda_{S}$ ,  $A_{L}$ ,  $B_{L_{S}}$ , or  $\beta_{B}$ ,  $1/\deg$ except nondimensional for  $\lambda_c$  and  $\lambda_s$ MP Mass parameter,  $\rho Rc_0/2m_0$ MU Rotor advance ratio; ratio of forward velocity component in plane of rotor to  $\Omega R$  (same as  $\mu$ )

Harmonic number appearing in Fourier expansion

## SYMBOLS (Continued)

<sup>n</sup> max	Maximum harmonic number required for determining flapwise bending moment
r	Ratio of local section radius to rotor radius
R	Rotor radius, ft or in.
s(or S)	Sine component of n <sup>th</sup> harmonic
$eta_{B}$	Preconing angle for hingeless blade, deg
$ heta_{\scriptscriptstyle I}$	Amplitude of linear blade twist, positive when tip angle is larger, deg
$ heta_{75}$	Blade pitch angle at the 0.75R station, deg
λς	Rotor inflow ratio; ratio of velocity parallel to control axis (axis of no feathering) to $\Omega  R$ , positive up
$\lambda_{s}$	Rotor inflow ratio; ratio of velocity parallel to shaft axis to $\Omega {\rm R},$ positive up
$\mu$	Rotor advance ratio; ratio of forward velocity component in plane of rotor to $\Omega  R$
ρ	Air density, slug/ft <sup>3</sup>
Ψ	Blade azimuth angle measured from downstream blade position in direction of advancing blade, deg
Ω	Rotor rotational frequency, rad/sec

# RELATION BETWEEN TRANSFER COEFFICIENTS AND FLAPWISE BENDING MOMENT

As described in detail in Part I, the transfer coefficients relate the independent rotor parameters to the flapwise bending moment at a given radial station and azimuth position. The transfer function for each independent parameter ( ) is equal to a harmonic summation of the negative Fourier series of transfer coefficients as shown by the following equation.

$$\overline{M}_{()} = \overline{M}_{(),0} - \sum_{n=1}^{n_{MAX}} (\overline{M}_{(),n,c} \cos n\psi + \overline{M}_{(),n,s} \sin n\psi)$$

For an articulated blade, the independent parameters ( ) are collective pitch  $(\theta_{75})$ , blade twist  $(\theta_1)$ , and inflow ratio  $(\lambda_C)$ . For a hingeless blade, the independent parameters are collective pitch  $(\theta_{75})$ , blade twist  $(\theta_1)$ , inflow ratio  $(\lambda_S)$ , cyclic pitch  $(A_{1S})$  and  $(B_{1S})$ , and preconing  $(\beta_B)$ . The total bending moment is obtained by scaling the independent parameters by the transfer functions and superposing the independent contributions in the following manner.

For an articulated blade,

$$M = \frac{EI}{R} (\overline{M}_{\theta_{75}} \theta_{75} + \overline{M}_{\theta_i} \theta_i + \overline{M}_{\lambda_c} \lambda_c)$$

For a hingeless blade,

$$M = \frac{EI}{R} \left( \overline{M}_{\theta_{75}} \theta_{75} + \overline{M}_{\theta_{1}} \theta_{1} + \overline{M}_{\lambda_{5}} \lambda_{5} + \overline{M}_{A_{15}} A_{15} + \overline{M}_{B_{15}} B_{15} + \overline{M}_{\beta_{8}} \beta_{8} \right)$$

# UNITS AND SCALE FACTORS FOR TABULATED TRANSFER COEFFICIENTS

The transfer coefficients presented in the tables have units of 1/degree except for the inflow ratio transfer coefficients which are nondimensional.

The transfer coefficients were tabulated from computer punch cards which were punched concurrently with the printing of the computer output. Due to format limitations of the printout a scale factor was used. This scale factor

was included in the punch cards, and thus is also incorporated in the tables presented herein. It must be removed when using the tabulated transfer coefficients. The scale factor used is 100,000 except for the inflow ratio transfer coefficients for which it is 1000. Thus,

$$\overline{M}_{()}$$
, n, c or s =  $\frac{TABULATED VALUE}{100,000}$ 

for transfer coefficients for which the independent parameter ( ) is  $\theta_{75}$ ,  $\theta_{1}$  ,  $A_{18}$  ,  $\theta_{18}$  , or  $\beta_{B}$  and,

$$\overline{M}_{\lambda,n,c \text{ or } s} = \frac{\text{TABULATED VALUE}}{1000}$$

for inflow ratio transfer coefficients  $\lambda_{\text{C}}$  or  $\lambda_{\text{S}}$  .

The coefficients are presented in exponential format. Thus, for example, the tabulated coefficient  $0.123 + 02 = 0.123 \times 10^2 = 12.3$ .

#### LIMITATIONS AND SCOPE OF TABULATED TRANSFER COEFFICIENTS

The following is a listing of the assumptions described in Part I which also apply to the tabulated transfer coefficients. However, reasonable extensions beyond the limits imposed by some of these assumptions can be made with little error, as discussed in Part I.

- 1. Blades with uniform mass and stiffness distributions
- 2. Constant chord blades
- 3. Low stiffness blades
- 4. Unstalled blades
- 5. Small offset (for articulated blades)
- 6. Negligible chordwise and torsional coupling
- 7. Linear twist blades

- 8. Conventional helicopter tip speeds below  $\mu = 0.5$  ( $\Omega R \cong 670$  ft/sec)
- 9. Advancing tip Mach number = 0.9 for  $\mu$  > 0.5

The range of the parameters influencing the tabulated transfer coefficients are summarized below.

Advance ratio 
$$\mu = 0.25, 0.4, 0.5, 0.7, 1.0, 1.4$$

Mass parameter 
$$MP = 0.1, 0.3, 0.5$$

Frequency parameter FP = 0.001, 0.0025, 0.01 (for 
$$\mu \le 0.5$$
)

FP = 
$$0.000447(1 + \mu)^2$$
,  $0.00112(1 + \mu)^2$ ,

$$0.00447 (1 + \mu)^2 (for \mu > 0.5)$$

The transfer coefficients have been tabulated for the following sets of independent parameters, blade stations, and harmonics.

Articulated blades -

Independent parameters:  $\theta_{75}$ ,  $\theta_{1}$ ,  $\lambda_{C}$ Blade stations:  $\bar{r} = 0.21$ , 0.35, 0.45, 0.55, 0.75, 0.85 Harmonics: n = 0 to 5 cosine and sine components

Hingeless blades -

Independent parameters:  $\theta_{75}$ ,  $\theta_{1}$ ,  $\lambda_{8}$ ,  $A_{18}$ ,  $B_{18}$ ,  $\beta_{8}$  Blade stations:  $\overline{r}$  = 0.0, 0.1 $^{1}$ , 0.325, 0.55, 0.75, 0.85 Harmonics: n = 0 to 5 cosine and sine components

#### ORGANIZATION OF TABLES

A total of nine basic tables of transfer coefficients are presented. These are divided into a set of three tables applicable to articulated blades and a set of six tables applicable to hingeless blades. Each of the nine basic tables applies to a specific independent parameter ( $\theta_{75}, \theta_1$ , etc.) and is subdivided into nine parts (A through I) corresponding to nine combinations of mass parameter and frequency parameter (i.e., blade design). A single page of tabulated transfer coefficients corresponds to one blade design, and results for six advance ratios, six radial stations, and five harmonics are presented

for each design. The transfer coefficients are listed in the following harmonic order (N, COR S): steady (O), first through fifth harmonic cosine components (1-5, C), and first through fifth harmonic sine components (1-5, S). Listings of the contents of the tables for articulated and hingeless rotors are presented below.

Listing of Transfer Coefficient Tables for Articulated Rotors

	_		Mass Parameter	Frequency Parameter			
	Root Constraint	Independent Parameter	Parameter MP	FP (For μ = 0.25, 0.4, 0.5)	$FP/(1 + \mu)^{2}$ (For $\mu = 0.7, 1.0, 1.4$ )		
lA	Articulated	θ <sub>75</sub>	0.1	0.001	0.000447		
18	1	Ĭ	1	0.0025	0.00112		
1 <b>C</b>	1		i i	0.01	0.00447		
1D	1	1	0.3	0.001	0.000447		
le :	1	1 1	1 1	0.0025	0.00112		
1 <b>F</b>			1	0.01	0.00447		
1G			0.5	0.001	0.000447		
1H	[ [		1	0.0025	0.00113		
11		7	l l	0.01	0.00447		
2A		θ,	0.1	0.001	0.00447		
2B	1	ı		0.0025	0.00112		
2 <b>C</b>	1	}		0.01	0.00447		
SD		ļ .	0.3	0.001	0.000447		
2E			1	0.0025	0.00112		
2 <b>F</b>	1	1 1	1 1	0.01	0.00447		
20	l 1		0.5	0.001	0.000447		
2H	lj †		1 1	0.0025	0.00112		
21		,	1 1	0.01	0.00447		
3 <b>A</b>		λ <sub>c</sub>	0.1	0.001	0.00447		
3B		lĭ	] ]	0,0025	0.00112		
3C			i 🔻	0.01	0.00447		
3D			0.3	0.001	0.000447		
3E			1	0.0025	0.00112		
3F			<b>!</b> ₩	0.01	0.00447		
3G		1	0.5	0.001	0.000447		
3H			ĺĺĺ	0,0025	0.00112		
31	1	1	1	0.01	0.00447		

Listing of Transfer Coefficient Tables for Hingeless Rotors

		Root Independent	Mass Persecter		nency neter		
Table No.	Root Constraint	Independent Parameter	Peremeter MP	FP (For μ = 0.25, 0.4, 0.5)	$FP/(1 + \mu)^2$ (For $\mu = 0.7, 1.0, 1.4$ )		
4A 4B	Hingeless	θ <sub>75</sub>	0.1	0.001	0.000447 0.00112		
4C 4D 4E			0.3	0.01 0.001 0.0025	0.00447 0.000447 0.00112		
4Б 4В 4Н 4Т			0.5	0.01 0.001 0.0025 0.01	0.00447 0.000447 0.00112 0.00447		
5A 5B		8,	0.1	0.001	0.000447 0.00112		
5C 5D			0.3	0.01	0.00447 0.000447 0.00112		
5E 5F 5G 5H 5I			0.5	0.0025 0.01 0.001 0.0025 0.01	0.00447 0.000447 0.00112 0.00447		
6A 6B		λ <sub>s</sub>	0.1	0.001	0.000447 0.00112		
6C 6D 6E			0.3	0.01 0.001 0.0025	0.00447 0.000447 0.00112		
6 <b>F</b> 6G 6H 6I			0.5	0.01 0.001 0.0025 0.01	0.00447 0.000447 0.00112 0.00447		
7A 7B		A <sub>ig.</sub>	0.1	0.001 0.0025	0.000447 0.00112		
7C 7D 7E 7E			0.3	0.01 0.001 0.0025 0.01	0.00447 0.000447 0.0011 <b>2</b> 0.00447		
7G 7H 7I			0.5	0.001 0.0025 0.01	0.000447 0.00112 0.00447		
8a 8b		B, ,	0.1	0,001 0,0025	0.000447 0.00112		
80 80 82			0.3	0.01 0.001 0.0025	0.00447 0.000447 0.00112		
8F 8G 8H 8I			0.5	0.01 0.001 0.0025 0.01	0.00447 0.000447 0.00112 0.00447		
9A 9B 9C		β <sub>B</sub>	0.1	0.001 0.0025 0.01	0.000447 0.00112 0.00447		
9D 9E 9F			0.3	0.001 0.0025 0.01	0.00447 0.00112 0.00447		
9G 9H 9I			0.5	0.001 0.0025 0.01	0.00447 0.00112 0.00447		

#### TABLES OF TRANSFER COEFFICIENTS OF FLAPWISE BENDING MOMENTS

\*\*\*\* CAUTION \*\*\*\*

Divide Tabulated Values by 100,000 to obtain transfer coefficients for  $\theta_{75}$ ,  $\theta_{\rm l}$ ,  $A_{\rm l_S}$ ,  $B_{\rm l_S}$ , or  $\beta_{\rm B}$  Divide Tabulated Values by 1000 to obtain transfer coefficients for  $\lambda_{\rm C}$  and  $\lambda_{\rm S}$ 

## TABLE 1. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (A) MP = 0.1 FP = 0.001 (FOR MU = 0.25,0.4,0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

N.C UK S	ADVANCE RATIO, MU = 0.25		N.C OR 5	AUVANCE RATIO: MU = 0.7	
	(0.21)R	•		(0.21)R	
U .17o9+U3 1-5≠C3U81+G∠	5661+023017+023065	+026260+01	01002+03 1-5:01215+03	0178+032261+03	1868+037503+01
1-5.5 .1104+03	.5886+011323+02 .2106		1-5:5 .4554+03	∠053+034755+03	2249+033397+03
	(0.35)R		08483+02	(0.35)R	
U ∙30€9+U3 1 <b>-</b> 5∙€ −•7257+U2	7774+023764+023262	+025697+01	08483+02 1-5:C3033+03	1008+043274+03	5609+02 .7171+01
1-5,5 .2225+03	.7895+013847+02 .1443	+023517+02	1-5+5 +8634+03	3881+037149+03	2267+033453+03
0 .4572+05	(0.45)R		09441+02	(0.45)R	
1-5.01009+03	0856+023430+022230	+024214+01	1-5.C4270+03	1034+043520+03	.8089+02 .2927+02
1-5:5 .2760+03	.6092+015975+022326	s+01 <b></b> 2636+02	1-5.5 .1081+04	5153+038257+03 (0.55)R	1348+031856+03
0 .3027+03	(0.55)R		01779+03	(U.557K	
1-5.61231+03	359+022557+023864		1-5+05144+03	7357+033444+03	.1679+03 .6108+02
1-5,5 .3004+03	-5169-008194+022813 (U.75)R	3+02 <b></b> 6780+01	1-5.5 .1190+04	0404+039213+03 (0.75)R	.2155+02 .1087+03
03469+03	(0.7578		05410+03		
1-5.C1038+03	•1034+03 •1351+01 •4049		1-5.03963+03	.7660+032130+03 6939+039203+03	2501+02 .1162+03 .3556+03 .7997+03
1-5:5 .1690+03	∠001+029660+028115 (0.85)R	5+02 .5159+02	1-5/5 .7846+03	6939+039203+03 (0.85)R	13538403 1797403
0494/+03			04763+03		
1-5.06015+02	.1114+03 .6896+01 .3803 1990+026724+026816		1-5.C2148+03 1-5.S .3890+03	.9310+031127+03 4686+036245+03	1143+03 .8951+02 .3060+03 .6901+03
1-5:5 .6747+02	1990+026724+026810	.5093+02	1-3/5 .3870+03		*3555755
N.C UK S	ADVANCE RATIO, MU = 0.4		N.C OR S	ADVANCE RATIO: MU = 1.0	
	(0.21)R			(0.21)R	
0 -1243+03	_		05298+03		
1-5:03804+02 1-5:5 .2109+03	1473+03		1-5.C2402+03 1-5.5 .9643+03	1041+047555+03 4160+031717+04	5880+031690+03 6554+031748+04
1-5/5 .2169+03	~.5068+021814+02603 (0.35)R	.2087402	1-5/5 .9645403	(0.35)R	
U +32c2+0s			09198+03		******
1-5:C11/8+03 1-5:5 .4218+03			1-5.C6075+03 1-5.S .1426+04	1921+041177+04 0042+032507+04	4409+032337+03 7331+031369+04
1-3/3 14210+03		3+01 .1833+02	1-3/3 11423.04	(0.45)R	***************************************
0 3871+03			01137+04		3178+021204+03
1-5,C ~.1764+03 1-5,5 .53c7+03	1914+031851+02 .185 1023+038871+02 .286		1-5,C8333+03 1-5,S .1518+04	2130+041382+04 1078+042677+04	4948+034601+03
1 5/5 15521105	(0.55)R		1 3/3 11315:54	(0.55)R	**********
0 •31u9+U3 1-5•C -•2242+U3	1028+039602+01753	9+01 .5087+01	01262+04 1-5.C9379+03	1715+041527+04	.5667+03 .1958+03
1-5.55867+83	1238+031143+03 .100		1-5/5 .1399+04	1329+042523+04	1382+02 .7269+03
-	(0.75)R	• • • • • • • • • • • • • • • • • • • •		(0.75)R	
U4186+U3 1-5⋅C1915+O3	.2681+03 .3109+02838	9+028098+01	U1066+04 1-5:C5292+03	.7632+031348+04	.1517+04 .1072+04
1-5,5 .3061+03	1463+031013+03 .204		1-5/5 .5511+03	1336+041236+04	.1086+04 .2192+04
	(0.85)R			(U.85)R	
05451+03 1-5:C -C1069+03	•2956+03 •3405+02 <b></b> 786	5+021030+02	U6279+03 1-5+C2145+03	.1117+048325+03	.1136+04 .6957+03
1-5:5 .1053+03	1096+035897+02 .157		1-5.5 .1707+03	8459+035261+03	.9197+03 .1573+04
NIC OR S	AUVANCE RATIO: MU = 0.5			AUVANCE RATIO, MU = 1.4	
	(0.0110		NIC OR S	ADVANCE RATTOF MO = 1.4	
U .7224+U2	(0.21)R			(0.21)R	
1-5.05402+02		9+027517+01	.01356+04 1-5.C1000+04	1259+042537+04	3847+031345+04
1-5.5 .2773+03		99+02 .5562+01	1-5,5 .2121+04	5849+032971+04	5849+032214+04
0 •2430+03	(0.35)R		0 07:0 7:	(0.35)R	
1-5.01648+03		0+02 .4803+01	02369+04 1-5,C1908+04	2237+043760+04	4494+021346+04
1-5.5 .5769+03	1731+031168+03454 (0.45)R	9+021939+01	1-5,5 .2875+04	1128+044561+04	9276+031511+04
0 .3027+03			02901+04	(0.45)R	
1-5,C2487+03 1-5,5 .7448+03	5989+035883+02 -623 221+031749+03204	24+02 .1579+02 49+025053+01	1-5,C2316+04	2376+044451+04	.6145+034925+03
1-5/5 ./440+03	(U.55)R	19402 -19033401	1-5.5 .2809+04	1523+044848+04	7949+0334 <del>99+</del> 03
0 .2253+03			03157+04	(0.55)R	
1-5,C3198+03 1-5,5 .8316+03		79+01 .2290+02 14+02 .3899-00	1-5.C2323+04	1734+045141+04	.1577+04 .1106+04
1-3/3 (0319703	(U.75)R		1-5:5 .2248+84	1875+044223+04 (0.75)R	1882+03 .7470+03
04913+03			0 -,2268+04	/U-15/K	
1-5:C2877+03 1-5:S .4873+03		22+03 .4886+01 52+03 .4661+02	1-5+C9873+03	.1033+045150+04	.2894+04 .4109+04
	(0.85)R		1-5,5 .3198+03	1814+046924+03 (0.65)R	.1552+04 .1136+04
05941+03 1-5:C1702+03	.4337+03 .3889+0222	06+036228+01	01211+04		
1-5/5 -1970+03		14+03 .4923+02	1-5+C3107+03	.1233+043242+04	.2016+04 .3094+04
			1-5.51431+03	1099+04 .1066+03	.1323+04 .5818+03

# TABLE 1. CULLECTIVE PATCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

(b) MP = 0.1 FP = 0.0025 FP = 0.00142(1+ML) ==2 (FDR MN + 0.756.0.1.4)

				0.0025 0.00112(1+My)**2	(FOR MU ± 0	.25.0.4.0.5)				
N.C OR		ADVANCE RATIO, MU = 0.2	25		N.C OR		Allumbics	RATID, MU = 0.7		
	<b>-</b>	(0.21)R			N/C OR	-	RUVANCE	(AT10; MU = 0.7		
′⁄0	.1869+03				0	6991+02				
1-5,C 1-5,S	1698+02 -1131+03	3292+022515+82 3381+011748+92	1432+01 971 <b>6</b> +01	.3223+02 .2325+02		1317+03 .4715+03	6040+03 1468+03	4880+03 6530+93	2457+03 1854+03	9390+03 .2899+03
1-3/3		(0.35)R	9/10/01	.2323742	1-5.5	,4715743	1408403	(0.35)R	1854+03	.2899+#3
\0	.3579+03		4.0.0		a	7943+82				
1-5,C 1-5,S	5158+02 .2121+03	4291+024082+02 2515+013476+02	620 <b>5</b> +01 118 <b>7</b> +02	.2423+82 .1896+82	1-5.C 1-5.S	2911+03 .8390+03	9339+03 2781+03	6972+03 9894+03	1647+03 1962+03	8124+03 .2267+03
1-3/3	************	(0,45)R	**********	*10*0**2	1-5/5	10370+03	/81703	(0.45)R	1902703	.220/443
0	.3902+63	•			0	1121+03				
1-5.C 1-5.S	7769+02 .2606+03	3224+024922+02 2066+014486+02	1233+02 1085+02	.2591+01 .3496+01	1-5,C 1-5,S	3911+03 .1023+04	9227+03 3794+03	7687+93 1140+94	3886+02 1529+03	2764+03 .3943+02
1-5,5	.2000+43	(0.55)R	1088+02	.3476+81	1-212	.1023+04	3/94+03	(0.55)R	1529+03	.3943+02
<b>'</b> O	.2878+03				G	1929+83				
1-5,C 1-5,S	9644+02 .2719+03	3283+015489+02 3043+015082+02	2057+02 8387+01	2757+02 1848+02	1-5,C	4430+03	6268+03 4657+03	7884+03 1247+04	.7118+02 1134+03	.5118+ <b>0</b> 3 2213+ <b>05</b>
1-5/3	12/1/403	(0.75)R	-+4387+01	1840442	1-5/5	.1000404	-14657103	(0.75)R	1134403	2213+63
- 0	1896+03				0	3461+03				
1-5,C 1-5,S	7855+02 -1492+03	.6744+024616+02 7847+013481+02	3064+02 2120+01	6793+62 5007+02		3049+03 .6791+03	.3542+03 4319+03	5841+03 1049+04	.9154+02 7112+02	.1595+04 5487+03
1-3/3		(0.85)R	-,2120+01	500/702	1-5,5	.0/91+43	4319403	(0.85)R	/112+02	340/+83
0	2233+03				0	2432+03				
1-5.C 1-5.S	4286+02 .6464+02	.5578+022697+82 0204+011790+02	2033+02 4069-00	-,4798+ <b>0</b> 2 -,35 <b>9</b> 1+ <b>0</b> 2		1532+03	• 3993+03	3254+03	.4020+02	.1120+04
1-5/5	*0404702	-:0204701 -:1790702	4069-00	3541465	1-5,5	.3315+03	-,2529+03	6088+03	4456+02	3769+03
N.C OR		AUVANCE RATIO, MU = 6.4	+		N,C OR	s	AUVANCE F	RATID, MU = 1.0		
	-	'0.21)R			*	-		40.4440		
0	.1504+03	·0.217R			۵	4948+03		(0.21)R		
	5004+02	1553+031431+02	.8697+01	.2715+02		2767+03	1096+04	1872+04	4478+03	5463+63
1-5.5	.2156+03	4043+024146+02	6624+01	.8533+01	1-5,5	.9185+03	3417+03	1785+04	3749+03	.7449+03
0	.3068+03	(0.35)R			0	8704+03		(0.35)R		
1-5.C	1232+03	2106+031779+02	.9718+01	.2535+02		5697+03	1848+04	2733+04	3014+03	4796+83
1-5,5	.4115+03	6605+028598+02	`3831+01	.6260+01	1-5.5	.1319+04	-+6988+03	2649+94	4401+03	.7269+03
0	.3338+03	(0,45)R			0	1067+04		(0,45)R		
	1723+03	1865+031231+02	.5042+01	.1253+02	1-5,C	7301+03	1976+04	3113+04	2368+02	1134+03
1-5.5	.5072+03	8272+021160+03	1031+00	.1789+01	1-5,5	.1377+04	9579+03	2884+04	4129+03	.1925+03
0	.2270+03	(0.55)R			0	+.1142+04		(0,55)R		
1-5.C	2020+03	1002+03 .1043+01	4738+01	6962401		7769+03	1574+04	3317+04	-2848+03	.4400103
1-5.5	.5261+03	9865+021376+03	.2828+01	3132401	1-5,5	.1228+04	1154+04	2748+04	3648+03	7601+03
0	2450+03	(0.75)R			0	7633+03		(0.75)R		
1-5.C	1468+03	·1397+03 ·3184+02	2504+02	3730+02		4477+03	.8029+02	2595+04	.5126+03	.1175404
1-5,5	.2734+03	9856+021152+03	.1942+01	6846+01	1-5.5	4975+03	9830+03	1451+04	2356+03	2203+84
0	2577+03	(0.85)R			0	3843+83		(0.85)R		
	7585+02	·1331+03 ·2574+02	1942+02	2772+02	1-5.C	2014+03	.3389+03	1441+04	.3156+03	.7993103
1-5.5	.1116+03	6143+026534+02	.3306-00	4283+01	1-5.5	.1815+03	-+5458+03	6560+03	1294+03	1529+84
N.C OH S	:	AUVANCE RATIO, MU = 0.5				_				
					N,C DR		ADVANCE F	RATIO, MU = 1.4		
		(0.21)R						(0,21)R		
0 1-5•C	.9894+02 6991+02	2921+035504+02	.7422+01	9042+02	0	1281+84 1014+84	- 1510.50	- 5001.65	1006167	F404107
1-5,5	6991+02 -2901+03	0772+029371+02	4026+02	9042+02 7769+01	1-5,0	1014+04 -1837+04	1514+04 5888+03	5201+04 2259+04	.1986+03 3049+03	.5606+03 1713+03
		(0.35)R		********	2 3/3		1000100	(0.35)R	-10047100	
1-5,C	.2347+03 1725+03	- "103103 - 700*100	.1867+02	*****	0	2196+04				
1-5,5	.5691+03	4103+037896+02 1216+031870+03	4024+02	7415+02: 1490+02;	1-5,C 1-5,S	1701+04 .2453+04	2641+04 1097+04	7739+04 3364+04	.5083+03 5225+03	.5087+03 2571+02
		(0,45)R	*********	11470102	1-3/3	12100104	12097104	(0.45)R	522	-123/1402
	-2564+03	1055.05			0	2652+04				
1-5.C 1-5.S	2435+03 .7148+03	3855+037957+02 1597+032501+03	.14 <b>42</b> +02 2707+02	2070÷02 1469÷02	1-5,C 1-5,S	2075+04 .2369+04	2919+04 1422+04	8897+04 3358+04	.7896+03 4294+03	.2870+03 1509+03
		(0,55)R		-1140/102	1-3/3		********	(0,55)R		-11303403
0	.1502+03	- 1640407 - 4//70:	0774	*********	0	2764+04				
1-5.C 1-5.S	2904+03 .7595+03	2518+036452+02 1951+032981+03	8774+01 8212+01	.5538+#2 6714+#1	1-5,6	1980+04	2477+04 1617+04	9411+04 2519+04	.1035+04 1274+02	.1386+02 6267+03
	.,	(0.75)R		10124101	1-3/5	. 1 76 4704	1017704	2519+04 (0.75)R	16/4702	020/+03
0	2987+03	1400.00			ú	177b+04				
1-5.C	2244+03 -4328+03	1935+035139+01 1935+032594+03	7734+02 .1993+02	.1615+93 .2125+92	1-5,C 1-5,S	8590+03 .5033+03	3688+03 1223+04	6911+04 -8163+02	.9537+03 .8519+03	2725+03 1514+04
1-5/5	- 4320103	(0.85)R	11775402	12123742	1-3/5	. 3033703		.8163+82 (0.85)R	*8313+03	-,1314+04
	2875+03		,		0	5675+03				
1-5,C 1-5,S	1203+03 -1920+03	1192+031503+03	6323+02 .1578+02	.1156∔03 .1932∔02	1-5,C 1-5,S	3140+83 .9809+02	-1300+03 6412+03	3667+04 -4429+03	.5312+03 .6347+03	1813+03 1037+04
1-3.3		-1192703 -11303703	125,0702	**********	1-3/3	- 7007702	-10412403	*********	.0347403	-,103/+04

#### TABLE 1. CULLECTIVE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (C) MP = 0.1 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FQR MU = 0.7,1.0,1.4)

N+C OR S		AUVANCE RATIO, MU = 0.25	,, = <del>,,</del>		Nec OH S	3	AUVANCE RA	ATIO, MU = 0.7		
~~~~	•					-				
0	·1729+03	(0.21)R			n	3922+02		(0.21)R		
	2292+02	~.2853+021143+01	.4505+01	.5882+01		1315+03	5607+03	1164+04	1669+03	.8976+01
1-5.5	.1019+03	1050+023970+01	.8207+01	.5887+01		+4521+03	5677+02	.4583+03	.7766+02	.1056+03
_		(0.35)R						(u•35)R		
0 1-5•C	.2660+03 4403+02	3181+029170-00	.5583+01	.6765+01	1-5.0	9193+02 1959+03	0632+03	1696+04	2274+03	1076+01
1-5.5	·1683+03	1540+028600+01	.1125+02	.6671+01	1-5,5	•66U7+03	0941+02	6806+03	.1385+03	.6235+02
- 5.5	11000.00	(0.45)R	*********	*4072102	2 3.0	1000.705		(0.45)R	************	***************************************
0	.2636+03				0	1347+03		_		
	5660+02	2256+028250-00	.4342+01 .1207+02	.4841+01		2212+03	5890+03 1053+03	1878+04 .7659+03	2368+03 .1774+03	1458+02 1754+02
1-5,5	.1929+03	1811+021116+02 (0.55)R	.1207+02	.6202+01	1-5,5	.7334+03		.7639703 (0.55)R	*11/4403	1/54402
C	.1862+03	(0.337K			0	1664+03		10133711		
1-5+C	6197+02	0012+011135+01	.1523+01	.1158+01		2229+03	·-·4347+03	1855+04	2188+03	2797+02
1-5,5	·1857+03	1997+021173+02	.1183+02	.5552+01	1-5.5	.7265+03	1105+03	.7692+03	.1996+03	1050+03
G	30bb+02	(U.75)R			0	1356+03		(0.75)R		
	4119+02	-1884+021801+01	3378+01	4566+01		1397+03	1098+03	1124+04	1168+03	3110+02
1-5.5	9047+02	1586+026430+01	.7553+01	.3697+01	1-5.5	.4423+03	7367+02	.4791+03	.1463+03	1551+03
	· · · · · · <del>-</del>	(U.85)R		**				(0.85)R		
0	4851+02				0	7106+02				
	2014+02	•1369+021170+01	2561+01	3309+01		6796+02	2714+02 3657+02	5408+03 .2327+03	5356+02 .7465+02	1732+02 8992+02
1-5.5	.3755+02	0526+012790+01	.3783+01	.1977+01	1-5,5	.2131+03	365/+02	.2321703	.7463702	8992+02
N+C OR S	i	ADVANCE RATIO, MU = 0.4			N.C OR	S	AUVANCE R	ATIO, MU = 1.0		
		(U.21)R						(u.21)R		
. 0	·14u6+03	1117107 4300103	0044103	4444.04	0	4196+03	U005.07	1053+04	0700.07	COOT + 02
1-5,¢	4876+02 .2024+03	1117+031322+03 2085+624548+02	2044+02 .1211+01	4441+01 .5058-00	1-5,5	2415+G3 .6877+O3	4224+02	•1545+04	.2398+03 .2164+03	.6903+02 2575+02
1-373	12024103	(0.35)R	*1511*01	.5056-00	1-5/5	*08//403	4224102	(0.35)R	*5104+03	-12375702
G	.2204+03	(**************************************			0	6316+03				
1-5.C	9099+02	1390+031923+03	2632+02	3600+01		3333+03	1114+04	1491+04	+4293+03	.3601+02
1-5,5	.3373+03	3172+028276+02	.2657+01	1128+01	1-5,5	•9082+03	0020+02	.2397+04	.3928+03	1160+03
a	.2150+03	(0.45)R			n	7171+03		(0.45)R		
1-5,C	1127+03	1171+032109+03	2880+02	1850+01		3514+03	1037+04	1609+04	.5486+03	1992+02
1-5,5	•38b2+03	3782+021033+03	.3787+01	1992+01	1-5,5	9173+03	0531+02	.2785+04	.5060+03	2009+03
		(0.55)R						(0.55)P	***************************************	
0	·1344+03				0	7227+03				
	1170+03	6431+022052+03	3110+02	2219-00		3261+03	4260+03	1540+04	-6115+03	7838+02
1-5.5	.3750+03	4168+021103+03 (0.75)R	.4619+01	1725+01	1-5.5	.8153+03	6290+02	.2868+04 (0.75)R	.5674+03	2688+03
a	6664+02	10.75/K			0	4450+03		101/3/11		
1-5,C	6758+02	-3690+021199+03	2621+02	.7311-00		1772+03	2971+03	8720+03	.4341+03	1049+03
1-5,5	.1853+03	3227+027058+02	.3771+01	.7093-00	1-5,5	.3971+03	3597+02	.1828+04	.4058+03	2301+03
_		(0.85)R						(0.85)R		
0 1-5•C	6765+02 3076+02	.3383+025698+02	1457+02	.3831-00		2139+03 8105+02	1091+03	4061+03	.2173+03	5925+02
1-5/5	-7611+U2	1714+023403+02	•1995+01	.8545-00	1-5,5	1738+03	1681+02	.8863+03	.2035+03	1205+03
			127,5.02	105-5-55		_		.0000	12000.00	
N.C UK		AUVANCE RATIO, MU = 0.5			N+C OK		AUVANCE F	RATIO: MU = 1.4		
	•	(0.21)R				-		(0.0110		
O	•9647+02	(0.2.7K			0	1006+04		(0.21)R		
	6203+02	2053+032359+03	4364+02	2205+01	1-5,C	4379+03	7927+03	.4140+03	.2759+04	.4783+03
1-5.5	•2739+03	+193+024885+02	.4049+01	.2075+02	1-5,5	-1155+04	. 3949+02	.1747+04	2934+03	3336+03
n	.1580+03	(0.35)R				_		(0.35)R		-
1-5,C	1172+03	2655+033473+03	5072+02	-2594-00	0	1462+04				
1-5,5	·4649+03	0068+U29761+U2	.1024+02	.1643+02	1-5,C 1-5,S	~.567d+03 .1439+04	-+8961+03 +4134+02	.6672+03 .2767+04	.3995+04 2747+03	.5767+03 4085+03
		(0.45)R		*	1-3/3	*1457104	**134*02	(0.45)R	-12/4/703	-,-0057113
υ	1458+03				U	1610+04				
1-5,C 1-5,5	14o3+u3 .5433+03	2351+033829+03 0123+021267+03	5425+02 .1732+02	.1524+01 .5853+01	1-5,0		/543+03	.7947+03	4389+04	.5276+03
1-5,5	+5433+03	(0.55)R	11/32402	.3033701	1-5,5	·1367+04	• >094+02		1647+03	3806+03
O	.6949+02				u	15pd+04		(0.55)R		
1-5,0	1530+03	1462+033728+03	6196+02	.7536-00		4866+05	>108+03	.8317+03	.4264+04	.4103+03
1-5.5	.5347+03	9019+021382+03	.2512+02	6107+01	1-5,5		·1009+02	.3372+04	2762+02	3040+03
		(0.75)R					_	(0.75)R		-
1-5.C	1047+03 8967+02	.4260+022149+03	6201+02	-,3363+01	0	9032+03				
1-5,6	-:8967+02 -:2757+03	6901+028920+02	-:0201+02 -2673+02	1543+02		2241+03	7954+02		.2447+04	.1371+03
- 5/3		(0.85)R			1-5.5	.4447+03	4199+01	.2136+04 (U.85)R	.1114+03	1112+03
0	6531+02				a	42uo+03		10.03/1		
1-5,0	4110+02	·+866+U21012+03	-,3636+02	2705+01		9506+02	4236+01	.2580+03	.1138+04	.4776+02
1-5+5	·11u4+03	3635+024285+02	.1531+02	-,9339+01	1-5,5	.1755+03	-++139+01	.1026+04	.7254+02	4145+02

## TABLE 1. CULLECTIVE PITCH THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

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NIC OR S	AUVANCE RATIO: MU = 0.25			NIC OIL		AUVANCE R	ATIO: MU = 0.7		
	(U.21)H				-		(u.21)R		
v •5142+U					5154+63				
1-5162169+0		b705+01	6397+01		9357+03	5123+03	1409+04	1027+04	1048+04
1-5:5 .3041+0	5359+023364+02 (u.35)H	6287+01	7274+01	1-5.5	.1412+34	1001+04	6641+03 (u-35)R	1581+04	1538+04
U .11a3+u				ш	6200+0.5		(0.331K		
1-5:659:0+0		1135+02	5159+01	1-5.0	2000+04	-+3725+03	2195+04	6525+03	9961+03
1-5:5 .0540+0		4988+01	1100+02	1-5,5	· 2464+U4	1085+04	1205+04	1559+04	1630+04
	(U.45)R						(0.45)R		
U131a+0		1244+02	-,2060+01	U 1=5≠€	nab2+05 272++04	1002+03	2502+04	1998+03	4560+03
1-5/5 -7757+0		5747+01	1008+02	1-5/5	2951+04	4096+04	1836+04	9327+03	9932+03
	(0.55)H						(U.55)R		
U .1U94+(				U	7020+05				
1-5:01052+		1073+02 1213+02	.1742+01 4720+01	1-5,6	3061+04	./285+03 483+04	2617+04 2876+04	.2713+02 .6702+02	.4700+03
1-5:5 .7595+0	3+361+0217∠6+03 (0.75)R	1213+02	4/20+01	1-3/3	.31(0+04	483+04	2876+04 (U.75)R	.6/02+02	.2189+03
01055+0				U	1230+04				
1-5.C8202+C		.3330+01	.5947+01		1950+64	• JJ32+U4	1900+04	9227+03	.2480+04
1-5:5 .29.1+0		4387+02	.1891+02	1-5,5	·1907+04	-•4589+04		.2022+04	.3147+04
U1474+L	(u.85)R			ų.	49.3+03		(u.85)R		
1-5:64364+6	3 •+264+03 •1038+03	+6859+01	.4236+01		0764+03	-2904+04	1086+04	1061+04	.2091+04
1-5.5 .2074+1		4144+02	.2033+02	1-5.5	.9551+03	1748+04	4031+04	.1716+04	.2764+04
HIL OK S	AJVANCE HATIO, MU = 0.4			N.C UK		ADVANCE R	ATIO, MU = 1.0		
	(v.21)R				_		(0.21)R		
0 .3503+1				U	1929+04				
1-5:03632+0	o/u76+u22414+03	.1934+02	.2744+02		2292+04	:943+63	<b>→.</b> 361U+04	3397+04	3816+04
1-5:5 .0005+	32026+031090+03 (U.35)R	1066+03	4498+02	1-515	+58A++0#	2396+04	1653+04 (u.35)R	4232+04	3876+04
ú •9uu4+1				U	3165+04		(0.35)8		
1-5.C9895+		.1420+02	.4497+02		4140+04	1372+04	5753+04	3106+04	4191+04
1-5.5 .1244+1	4ن101+032878+03	7145+02	5299+02	1-5.5	.4125+04	3706+04	3084+04	4476+04	3044+04
	(U.45)R			6			(0.45)R		
1-5:1 -11:5+1		7629+01	.4218+02		30J7+04 4955+04	1534+04	6892+04	1573+04	2270+04
1-5:5 1504+1		3121+02	3956+02	1-5,5	.4218+04	396+04	4115+04	2828+04	1261+04
	(u.55)K						(U.55)R		
v •#ucu+		4970+02	.1844+02	U V	3053+04		==0.4.4		
1-5+61749+		2011+02	9124+01	1-5/6	-,5025+04 .3637+04	~•1009+04 ~•1009+04	7791+04 5128+04	.6516+03 .1759+03	.1731+04 .6401+03
1-3/3 .15557	(v.75)K	-12011.00	-19161.01	1-3/3	13031104		(0.75)R	*1139703	.0401403
11co+	4			U	1938+04				
1-5,61544+	4 •1413+04 •3461+03	1659+03	9352+02		2209+04	•1745+04	7197+04	.4164+04	1106+05
1-5.5 .5940+	3∠490+v3104u+04 (U.85)∺	1773+03	.8308+02	1-5:5	•8558+02	+541+04	5440+04 (u.85)R	.6458+04	.1922+04
U =.154U+				U	834/+63		(U+03)K		
1-5107053+		1471+03	9997+02		70-1+03	·1::39+04	4513+04	.3208+04	9105+04
1-5/5 .6024+	21938+03803u+03	1950+03	.8186+02	1-5:5	4020+02	109+04د	-+3530+04	+5353+04	.1117+04
NAC OR S	AUVANCE RATIO: MU = 0.5			NIC OR	5	AUVANCE I	KATIO+ MU = 1.4		
					-				
	(U.21)R			n	4501+04		(0.21)R		
0 .1397+ 1-5+64916+		.1807+02	2316+01		7251+04	• < < 23+04	5366+04	5241+04	4041+04
1-5:5 -8000+		4061+03	1734+03		.5907+04		•3731+04	3684+04	.3310+04
	(U.35)R	· · · · · · · ·		_		***	(0.35)R		
U •5694+	0.5			0	6545+04 1059+05				
1-5,61301+		.5410+02 3238+03	.4522+02 2255+03	1-5,5	1099+05 -7502+09	- 2769+04 - 2477+04	9169+04 .2583+04	4361+04 4198+04	4920+04 .4142+04
1-3/3 110/11	(u.45)R	.0230.05			*******		(u.45)#	-64270404	.4145104
0 .7513+				U	7001+04				
1-5:01059:		.2134+02 1442+03	.6897+02 1762+03	1-5,6	1103+05 .7046+04	±2585+04		1331+04	3030+04
1-5/5 -21174	04/932+036484+03 (U-55)R		1/02703	1-3/5	. / 440 7 04	4985+04	.9174+03 (U.55)R	-,2194+04	.2010+04
U .S40/+				U	6705+04				
1-5:02270:	04 .1092+045289+03	1131+03	.5757+02		1014+05	• - 066+04	1455+05	-2997+04	.1395+04
1-5:5 .2255	640556+831137+04 (y.75)R	.4642+02	3289+02	1-5,5	.5364+04	581+04		.<104+04	3136+04
014144				U	3841+04		(0.75)R		
1-5:61739	U4 .cu30+U4 .2N58+U3	6777+03	1256+03		2340104	+1/377+03	1476+05	.9037+04	.1121+05
1-5:5 .1219:	04376+032147+04	.1238+03	.4771+03	1-5.5		-+ JJH1+84	.3224+03	.1109+05	1462+05
	(0.85) H			U	- 1 1		(U.85)K		
010/04 1-5:091324		6510+03	1557+03		-10:5+64 .7202+0.	+1846103	-,9188+04	.6463+04	.8838+04
1-5/5 -191324		.3339+02	.4773+03			131+04	-671u+03	.8578+04	1135+05

## TABLE 1. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

# 

			FP = 0.	0J112(I+MU)++2	(FOR HU = 0.7	(1.0,1.4)				
N+C OR S	\$	AUVANCE RATIO: HU = 0.25			N.C OK	\$	AUVANCE F	RATIO, MU = 0.7		
	•	(0.21)R			******	-				
0	+5609+03	(0.51)K				4170+03		(0.21)R		
	2407+03	1697+026348+02	·1982-00	.1043+02	1-5+C	9437+03	0362+03	2095+04	1727+04	2274+04
1-5.5	.3593+03	0781+024266+02	1452+02	4758+01	1-5,5	.1393+04	1022+04	6930+03	8673+03	.3515+02
1	.10pU+04	(U.35)R			n	5510+03		(0.35)R		
1-5•C	5714+03	-3886+028084+02	~.3399+01	.8916+01	1-5,6	1902+04	132+03	3153+04	1526+04	2037+04
1-5.5	.6341+03	9794+02 9036+02	1181+02	4260+01	1-5/5	.2348+04	1741+04	1252+04	6051+03	3409+02
G	.1147+04	(0.45)R			U	04.6		(0.45)R		
1-5.C	7641+05	·1180+037189+02	8422+01	.2686+01	1-5,6	6295+03 2425+04	>154+03	3535+04	9264+03	7838+03
1-5,5	.7425+03	u665+021271+03	7608+01	2065+01	1-5.5	2701+04	<177+04	1847+04	4710+03	-,1862+03
a		(0.55)R						(0,55)R		*20-2110
1-5.6	9021+03	.∠218+034597+02	1520+02	6733+01	0 1-5,0	-,7420+UJ -,2664+04	·4183+03	3652+04	3093+03	
1-5+5	.7202+03	7309+021603+03	5810+01	.9802-00	1-5,5	-2817+04	2494+04	2645+04	~.3502+02	.1116+04 4296+03
		(0.75)R					,	(0,75)R		-14270103
0 1~5•C	5806+03 6241+03	.3382+03 .2215+02	- 2318402	2447400		8250+03				
1-5+5	2972+03	5221+021577+03	2318+02 1147+02	~.2103+02 .5156+01	1-5+C 1-5+5	1552+04 .1554+04	-+4125+04	2603+04 3385+04	.1513+03 .5007+03	.3838+04
		(0.85)R	*********	*5150.41	1 3/3	*1051104	-1222704	(0.85)R	*3007403	7697+03
. 0	6732+03				U	5295+03				
1-5.C 1-5.5	3132+03 -9076+02	.2560+02 3270+029575+02	1575+02 9519+01	1530+02 .3740+01	1-2.C	7150+03	1356+04	1410+04	.7369+02	.2723+04
1-515	*4010405	~.32/040293/3402	4274401	.3740+01	1-5+5	.7043+03	1219+04	2195+04	.3574+03	5268+03
N,C OK S		AUVANCE RATIO, MU = 0.4			N/C UK	s	AUVANCE A	RATIO: MU = 1.0		
~~~~~	•	40 -41-								
n	.4165+03	(0.21)R			ŧı	4944.4		(U.21)R		
1-5+0	4029+03	yu79+U226<9+03	2900+02	1309+01	1-5,6	1790+04 2195+04	-+0154+03	-,4927+04	338B+04	1744+04
1-5.5	.6631+03	2547+03 .1454+03	1040+03	~.8511+02	1-5/5	• 266d+V4	2414+04	2722+03	6837+03	.1496+04
		(U.35)R						(0,35)R	-10007100	. 14,0104
0 1~5+C	.0012+03 .040+03	.ub33+023501+03	3405+02	.1316+02		2935+04				
1-5/6	.1263+64	~.350+033347+03	8631+02	~.8634+02	1-5+C 1-5+5	3739+04 .3059+04	1575+04 3863+04	7556+04 1065+04	3028+04 7263+03	1618+04
		(0.45)R		70007	1.013	10007704	-10003704	(0,55)R	1203+03	.1527+04
0	.9397+03	-4			U	3368+04				
1-5:C 1-5:5	1304+04 .1429+04	.2952+033256+03 3475+035049+03	4439+02 5556+02	.1930+02 ~.4926+02	1-5.C	4310+04	1763+04	8885+04	1694+04	7342+03
1-575	*1450104	(0.55)R	3330702	4720702	1-5:5	.3669+04	+601+04	1715+04 (0,55)R	3302+03	.2302+03
U	.6397+03	_			Ù	3317+04		10155711		
1-5.C	1502+04	.5891+032267+03	7037+02	.1344+02	1-5.C	4172+04	1412+04	9675+04	9491+02	.5925+03
1-5+5	.1412+04	3425+036872+03 (0.75)R	3883+02	.1405+02	1-5:5	.3102+04	4972+04	2193+04	.4136+03	2255+04
а	6939+03	101/5/1			0	1740+04		(U.75)R		
1-5.6	1030+04	.9067+03 .6529+02	1264+03	~.2631+02	1-5,0	1000+04	· #U58+03	-,7647+04	.1554+04	.2359+04
1-5.5	•5894+03	2634+037781+03	6795+02	.1265+03	1-515	.1019+04	3709+04	1817+04	.1613+04	6195+04
t t	7295+63	(U.85)R				94. 140.		(0.85)R		
1-5.6	5143463	•u105+03 •9396+02	~.9182+02	2625+02	1=5.0	766J+03 7163+03	·+199+û3	4232+04	.1042+04	.1627+04
1-5.5	-1837+03	1558+034945+03	5678+02	.9720+02	1-5+5	.2919+03	1993+04	9739+03	.1142+04	4310+04
NAC OK S	5	AJVANCE RATIO, MU = 0.5			H,C UK	•		RATIO: MU = 1.4		********
					1110 01	-	ADVANCE P	(A110) MO - 1.4		
		(0.21)R						(n.21)R		
0 1~5,C	.22U5+03 54∠u+03	∠173+035032+03	1722+03	1781+03	, U	3964+04		/ ** /		
1-5,5	•d7bd+03	+730+031592+03	3227+03	2056+03	1-5.C 1-5.5	6624+04 .5225+04	•9685+03 ••4611+04	6316+04 -4390+04	1530+04	.3746+04
		(0.35)R			7-3/3	- 3665704		(0.35)R	.9027+03	.1259+03
U	·5810+03				Ú	5744+04				
1-5/6 1-5/5	1249+04	•1262+02 -•7370+03 -•1269+03 -•4479+03	1540+03 2739+03	1282+03 2353+03	1-5.6	1009+05	.0961+03	1053+05	5616+03	.2734+04
1-3/3	*1041404	(0,45)R	2/39403	2353703	1-5.5	•6731+04	>65+04	.4844+04 (U.45)R	,7467+03	.2353+03
0	.034463				U	6213+04		10,45/1		
1-5.C	1097+04	.3067+037573+03	1276+03	1869+02	1-5-C	1071+05	+1571+03	1301+05	1189+04	.5068+03
1~5+5	•2ùuv+04	~0445+037698+03 (0.55)R	1416+03	1529+03	1-5,5	.6351+04	5390+04	.4648+64	.1486+04	-,2455+03
0	*3401+03	10.531K			U	5931+04		(U.55)R		
1-5,C	1424+04	.0159+036337+03	1421+03	.1167+03	1-5,0		4188+03	1448+05	.3322+04	2068+04
1-5/5	.2073+04	7124+031176+04	.5432+01	.2018+02	1-5.5	4912+04	-++578+04	.4681+04	.3420+04	1352+04
a	- u.T. wail:	(0,75)R						(0.75)R		
1~5.C	6764+03	.1295+049326+02	2612+03	.2617+03	U 1−5,€	3261+04 2872+04	-+4083+03	1108+05	4934+04	
1-5.5	.1084+04	/395+031572+04	.1325+03	.3848+02	1-5,6	-1003+04	2214+04	1108+05 -4338+04	.6436+04	4126+04 3071+04
		(U.85)R		-	_			(0.85)R		
. U	6204+03	.0712+03 .4657+02	2005.63		O	1527+04				
1-5,c 1-5,5	6040+UJ .4402+UJ	.u712+03 .4657+02 +294+031044+04	2005+03 .8401+02	.1773+03 .3062+03		6808+03	+828+03	5899+84	.3020+04	2539+04
4-313			*********	.5002705	1-515	• 1uuu+da	1017+04	•2601+04	•4267+04	2062+04

## TABLE 1. CULLICITYE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

		FP = U.UU447(1+FU)002	(FOR MU = 0.7:1.0:1.4)		
N.C OR S	ADVANCE RATIO: NU = 0.25		NIC OR S	AUVANCE RATIO, NU = 0.7	
	40.0110		*********		
0 •5169+03	(0.21)R		02151+03	(0.21)R	
1-5.62543+03	3074+029327+02	1022+0225262-01	1-5:04868+03	1139+042567+04	8640+031392+03
1-5.5 .3267+03	0615+022543+02	.7676-00 .1980+01	1-5.5 .1300+04	6124+03 .6570+03	.4970+03 .4470+03
0 .7945+03	(0.35)R		A ==3852+115	(0.35)R	***************************************
1-5:C4041+03	0341+011285+03	1342+02 .1158+01	0 -,3852+03 1-5:C -,1427+04	-,1340+04 -,3744+04	1105+041913+03
1-5,5 .5248+03	0339+025665+02	.1866+01 .1237+01	1-5/5 .1908+04	9160+03 .7767+03	·7977+03 -3157+03
0 •7356+03	(0.45)R			(0.45)R	***************************************
1-5.C5063+03	.3448+021335+03	1510+02 .1612+01	04963+03 1-5:C1598+04	1181+044149+04	
1-5.5 .5827+03	0382+027832+02	.2392+01 .5796-00	1-5,5 ,2114+04	1037+04 .6891+03	1078+042009+03 .9528+03 .3215+02
0 •5477+03	(0.55)R			(0.55)R	17320100 .3215402
0 .5477+03 1-5:C5857+03	.0170+021215+03	1683+02 .1106+01	0 -,5513+03 1-5:C -,1596+04		
1-5.5 .5419+03	7812+029069+02	.2330+01 .5267-00	1-5/5 .2090+04	4608+034102+04 1047+04 .5079+03	9172+031874+03
	(0.75)R		1 4/5 120,0104	(0.75)R	.1012+042898+03
010c0+03 1-5:c3345+03	·1067+63 ~.6062+02	1477+021080+01	04056+03		
1-5:5 .2301+03	+837+026549+02	.8309-00 .1407+01	1-5,C -,9859+03 1-5,5 ,12ca+64	c019+032490+04 u581+03 .1273+03	4018+03 1021+03
	10.85)R		1 0/3 1/200/04	(0.85)R	.6867+035111+03
1-5:61514+65	·0366+022679+02		02059+03		
1-5/5 -151/703		8282+019961-00 -2251-00 .1027+01	1-5:C4774+03 1-5:5 :0163+03	4372+021198+04	1676+034718+02
		*2001 00 \$1021101	1-5,5 .0163+03	3206+03 ,3111+02	.3427+033019+03
NIC OR S	ANVANCE RATIO, MU = 0.4		NIC OK S	AUVANCE RATIO, MU = 1.0	
	(0.21)R				
0 +4055+63	(0.21)K		U1345+04	(0.21)R	
1-5,64164+63		9959+023173+02	1-5,C -,1871+04	1852+043683+04	.2494+03 .1665+03
1-5:5 .6059+65	1936+038309+02 (0.35)R	2980+01 .1154+00	1-5,5 ,1944+04	9784+03 .3457+04	·1212+04 -·1107+03
<b>ს .</b> ც45J+03			0197d+04	(0.35)R	
1-5,670/9+63	6473+025701+03	1270+032573+02	1-S.C2542+04	-,2423+04 -,5329+04	·8667+03 .9017+02
1-5,5 .9969+03		.2970+011073+02	1-5/5 .2664+04	-,1300+04 ,5080+04	.2020+043752+03
6 .6269+03	(0.45)K		U -,22U3+U4	(0.45)R	
1-5.6 44.7+63	·1871+026065+03	1354+031451+02	1-5/62640+04	4423+045857+04	.1424+044127+02
1-5,5 .1110+04	4886+03 3919+02	.8005+011684+02	1-5/5 .2608+04	1321+04 .5657+04	.2468+046127+03
J .4010+03	(0.55)R		u2150+04	(0.55)R	
1-5,6 -,9720+02	.1486+035636+03	-:1407+035443+01	02160+04 1-5:C2440+04	2128+045718+04	·1857+041793+03
1-515 .1447+44	795+633763+03	.1059+021646+02	1-5/5 .2413+04	1183+04 .5595+04	·2654+047966+03
01345+03	(0.75)R			(0.75)R	***************************************
1-5+65555+65	·_529+u32892+03	1111+031779+01	υ -,1366+V4 1-5,6 -,126/+V4	1008+043347+04	.1555+042443+03
1-5-5 .4095+00	1695+032964+03	.6109+012005+01	1-5/5 .1220+04	2859+03 .3349+04	.1555+042443+03 .1799+046651+03
	(0.85)R			(0.85)R	-10001100
01960+03 1-5/62517+03	-1536+631267+03	6072+021718+01	1-5+C5714+03		
1-5/5 .1031+03	0281+021549+03	.2456+01 .1496+01	1-5/5 -5401+03	4357+031578+04 2585+03 .1590+04	+6104+031382+03 +8888+033465+03
NIC ON S	MUVANCE RATIO, MU = 0.5				·8888+033465+03
	MANUE KATTON HO = 015		MIC OK S	AJVANCE RATIO, MU = 1.4	
	(0.21)/3			(0.21)R	
მ .∠ნნპ+მკ 1−5≀ს −.პ579+მკ	c927+037394+03	2590+037118+02	03177+04		
1-5/5 -0200+03	566+034492+02	2590+057118+02 7358+01 .5480+02	1-5:C3161+04 1-5:S .3465+04	3664+03 .6312+03	.6034+04 .1471+04
	(0.35)R		1-313 13463404	-•0475+03 •7499+04 (0•35)R	5572+031601+04
U .4403+03 1−5≀C1013+U4	- 744407 - 444444	74.507	v4450+v4		
1-5,61013+04	716+031088+04 3415+032147+03	3034+035311+02 .3635+02 .1747+02	1-5/03905+04	1730+03 -1021+04	.9301+04 .1632+04
	(U.45)R	1000000	1-515 .4414+04	/439+03 .1067+05 (0.45)R	2085+031797+04
0 .4160103		- 1045403	U -+47u2+34		
1-5/61237/104	1294+0311e5+04 u143+0338b2+03	3015+032380+02 .6737+022790+02	1-5,637/0+04	·1389+03 ·1220+04	.1073+05 .1337+04
	(0.55)R	- 12/70/02	1-515 .4297+04	758+03 .1196+05 (0.55)R	-3171+031497+04
50+6502			U =.445d+U4	NCC+01	
1-5:612/9+04	-/154+021126+04 0206+035389+03	2987+035100-00	1-5,63090+64	· +526+03	.1092+05 .8598+03
1-0/5 (1004)4	0206+035389+03 (0.75)R	.9737+026434+02	1-5/5 .304/+04	+v1U9+U2 +1163+05	.8354+039942+03
0 -,2923+03			02456+64	(U.75)R	
1-5/673/2+03	-4943+035988+03	2362+03 .5395+01	1-5:61234+04	• 5053+03 • 8252+03	.6746+04 .7085+02
1-5/5 .705/+05	d99+035091+03 (0.85)R	.9691+026151+02	1-5/5 .1503+04	·+449+03 ·6663+04	.9867+031278+03
U2400+03			U1125+64	(U.85)R	
1-5+63303+03	1907+032699+03	1313+03 .9418-00	1-5,64850+03	•÷126+03 •3986+03	.3215+043581+02
1-5:5 .32:2+03	1906+03 2793+03	.5405+023125+02	1-5:5 .0532+03	· <736+U3	.5414+03 .1260+02
	NOTE -	DIVINE LIETED VALUED OF AND D			

## TABLE 1. CULLECTIVE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

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NIC ON S	AUVANCE RATIO: MU = 0.25			NOC UK S		AUVANCE R	ATIO: MU = 0.7		
					-		(U.21)R		
u .83£7+U3	(0.21)R			U	1104+04		(U.21/R		
1-5+65775+03	-1486+031442+03	.2992+01	2454+01		2222+04	·2884+03	1947+04	1205+04	2383+04
1-5:5 .6009+03		2262+02	1225+02	1-5+5	.2299+04	-•<005+04		3063+04	2372+04
	(U.35)R						(0.35)R		
u .1du6+04			*****		1403+04		- 700, 104	***********	2175+04
1-5.01530+04		6819+01 7799+01	.3057+01 1134+02	1-5.C 1-5.S	+•4240+04 •3650+04	.1057+04 2803+04	3206+04 6976+03	4496+03 2920+04	2723+04
1-5:5 .9260+03	7653+021597+03 ·	//99+01	1154702	1-3/5	13030404	2803704	(U.45)R	2720404,	2123704
0 .2112+04	(0.43)K			U	1464+04				
1-5,02107+34		1700+02	.6151+01		5254+04	·1962+04	3764+04	.4434+02	9807+03
1-5.5 .9861+03		7158-00	6744+01	1-5.5	•411J+U4	49+04 د • =	1952+04	1559+04	1809+04
	(U.55)R			a	1437+04		(0.55)R		
0 .174u+U4 1-5+C2669+U4	•d151+U3	2754+02	.4888+01		5500+04	. 3226+04	4003+04	2598+03	.9023+03
1-5:5 .6713+03	.2756+033156+03	1345+02	7213-00	1-5.5	.4000+04	3203+04	4057+04	.6021+03	2005+03
1-313 (0)1010	(U.75)R						(0.75)R		
01741+04				U	1365+04				
1-5:020-8+04		~.3300+02	1802+02		2900+04	• 53 <del>35+</del> 04	2816+04	3940+04	4557+04
1-5:5 .17<2+02		1217+03	.7238+01	1-5+5	+2091+04	2976+04	8639+04 (U-85)H	.4822+04	.5683+04
0 =.24u0+04	(0.85)R			0	9676+03		(0.65)4		
1-5.61067+04	•3905+03 •3221+03	2177+02	-,2127+02		1074+04	•4046+04	1542+04	5924+04	.3761+04
1-5.52403+03		1247+03	.5561+01	1-5.5	8553+03	< 004+04	6913+04	.4032+04	.5123+04
N.C OR S	AUVANCE RATIO: MU = 0.4			N.C OR	S	AUVANCE R	ATIO: MU = 1.0		
	(0.51)				-		(0.2110		
0 .5145+03	(0.21)R			b	35p1+04		(0.21)R		
U .5145+03 1-5≠C88∪4+03	·4269+034808+03	.1045+03	4387+01		5012+04	·6194+03	3702+04	4571+04	6034+04
1-5.5 .1113+04	5674+031047+03	1915+03	1409+03	1-5:5	•4638+04	+782+64	+1398+04	6835+04	3049+04
2 3.3	(U.35)R						(0.35)R		
0 .1355+04			444.7.00	0	5148+04				
1-5.62540+04	6347+03	.7848+02 4121+02	.8067+02 1434+03		7752+04	•4472+03	6708+04	4044+04 6906+04	-,7016+04
1-5+5 +1879+04	3776+034481+03 (U.45)R	4121*02	1434703	1-5.5	•5932+04	5818+04	4788+02 {0.45}R	6706+04	-,2418+04
u .1654+04	(0.43)K			0	5370+04		10.45711	,	
1-5.63340+04		1863+02	.1140+03		8423+04	• db91+02	8609+04	2066+04	4314+04
1-5.5 .2123+04	2648+028031+03	.6392+02	8881+02	1-5.5	.5544+04	5676+04	1978+04	3795+04	1262+04
	(U.55)R						(0.55)R		
U .1348+04	·2327+041562+03	1939+03	.6938+02	0	4801+04 7775+04	1505100	1017+05	.5199+03	.1747+04
1-5.64073+04		.3649+02	.4803+01	1-5,5		•1595+02 ••5413+04	4170+04	.1696+04	-,3364+03
1-5,5 .2015+04	-3884+031248+04 (0.75)R	,3047.02	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1-0/3	**250***	-13423104	(0.75)R	120,0101	-10004140
· U1761+04				U	1591+04				
1-5.C5054+04	•<465+04 •1157+04	6442+03	3438+03		֥2560+04	.1018+04	9459+04	.3897+04	.1666+05
1-5:5 .3217+03	.7973+031866+04	6710+03	.2206+03	1-5.5	.3305+05	-•4760+04	6051+04	.1280+05	-,7479+03
	(0.85)R			0	3399+03		(U.85)R		
02357+04 1-5+C1571+04	.1630+04 .1160+04	5653+03	3677+03		4517+03	.1013+04	5838+84	.2875+04	.1395+05
1-5/53520+05	.5546+031439+04	7476+03	.2008+03		5162+03	3170+04	4047+04	.1036+05	-,9160+93
				N+C OR	•		MATIO: MU = 1.4	•••	************
N+C OK S	ADVANCE RATIO: MU = 0.5			NIC OR	>	ADVANCE I	WITOL WO + T+4		
	(0.21)8						(0.21)R		
U .6447+02	10.22711			0	7646+04				
1-5.C1224+U4	.4586+037442+03	.2822+03	9418+02		1379+05	•4128+04	2177+04	4598+04	3314+04
1-5+5 .1430+04	9881+03 .1174+03	7960+03	4556+03	1-5•5	• 6366÷04	7620+04	.1147+05	6172+04	.5738+84
	(0.35)R			0	8776+04		(u.35)R		
0 .7345+03		F04400E	.9412+02		1871+05	+310+04	6212+04	~.3038+04	5635+64
1-5:62971+04 1-5:5 .2600+04	1059+041177+04 1072+043391+03	.3904+03 4642+03	5866+03	1-5.5		5238+04	•1050+05	-,6169+84	. 5649+64
1-3/5 .2000+04	(U.45)R	. 7074.00	,0000.00				(0.45)R		
U .1∪∠5+Ú4				. 0	7727+04				
1-5.04118+04	.2648+041161+04	.2157+03	.2097+03	1-5,C 1-5,S	1638+05	- 2980+04	9533+04 .7270+04	.6373+03 2312+04	-,4677+84 ,2267+84
1-5:5 .31.7+04	5386+03 1011+04	2813+02	4471+03	1-012	.7394+04	1521+04	.7270+04 (0.55)R		· SER LANG
. 7,41.0.	(0.55)R			0	5988+04		, 4130 M		
U .7855+03 1≃5+C4916+04	.3576+047417+03	3012+03	.1864+03		1492+05	.8449+83	1242+05	.5733+04	.5051+03
1-5/5 .3226+04	4730+032030+04	.3048+03	5340+02	1-5.5	4994+04	+1651+04		.4876+84	
_	(0.75)R						(U.75)R		
01990+04		*****	****		2532+04	.=00.0	1	.074.67	4544.65
1-5+L3598+04	.3679+04 .1378+04 .2119+034164+04	-,2199+04 -,1931+03	5262+03 .1329+04	1-5.C 1-5.S	2753+04 .1152+04	2790+04 .1770+04	1187+05 .3653+04	.1236+05 .1833+85	.1514+05 1541+05
1-5:5 .1571+04	.2119+034164+04 (U.85)R	1731703	1367704	1-012	11102704	*1770+04	(0.85)R	17-30-48	-0 f846448
02594+04	10.0311			0	1220+04				
1-5.61855+04	.2355+U4 .1614+D4	-,2100+04	~.6451+03	1-5.0		2252+04	7008+04	.0628+04	.1249+03
1-5,5 .2910+03	.2421+033421+04	4793+03	.1318+04	1-5.5	•3700+03	•4237+03	·290 <del>9+</del> 04	, 1380+85	1150+05

## TABLE 1. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

		0.	100112(1+140)**2	1 OK MU - U.	//1.0/1.4)				
N+C OK S	AUVANCE RATIO, MU = 0.25			N.C OK	5	AUVANCE F	RATIO, MU = 0.7		
	(U.21)R				-		(U.21)R		
.u .9197+03	10.5114			u	9550+03		1012371		
1-5,C6487+03	·1648+031412+03	1257+02	1070+02	1-5+C	2249+04	\$05+02	2882+04	3060+04	3831+04
1-5.5 .5771+03	1887+036791+02	2472+02	1314+02	1-5/5	.2277+04	1942+04		1765+04	1683+03
	(U-35)R						(0.35)R		
0 •1725+04				U	1270+04				
1-5/C1498+04 1-5/S -9062+03	1585+03	1793+02	4920+01 1409+02	1-516	40c3+04 .3547+04	•5907+03 ••2877+04	4445+04 1111+04	2707+04	3513+04
1-5/5 .9062+03	1172+031626+03 (0.45)R	1730+02	1409+02	1-3/5	+3347+04	28//+04	1111+U4 (U-45)R	1594+04	3687+03
0 .1860+04	10.4578			U	-,1335+04		10,4378		
1-5.C2035+04	•5769+03 -•1125+03	2247+02	.1454+01	1-216	-,4965+04	+1320+04	5071+04	1726+04	1518+04
1-5.5 .9748+03	·2151+012406+03	1319+02	9213+01	1-5.5	.394U+D4	3283+04	2301+04	7262+03	5237+03
	(U.55)R						(0.55)R		
0 .1346+04				ΰ	1300+04				
1-5.C2316+04	•7248+03 <b>-</b> •2305+02	2952+02	.5277+01		5021104	-274+04	5215+04	8137+03	.1528+04
1-5.5 .8468+03	•1276+03313e+03	<b>2114+</b> 02	3817-00	1-5:5	.3777+04	3500+04		•5279+03	6562+03
0 9634+03	(0.75)R			ii	- 1.35.03.04		(U.75)R		
09634+03 1-5,C1566+04	•o664+03 •1580+03	3883+02	4583-00		4250+03 27c6+04	+3206+04	3514+04	3377+03	.5958+04
1-5.5 .1550+03	·2078+033189+03	5978+02	.1634+02	1-5,5	1040+04	-+4780+04	5915+04	-2243+04	6111+03
. 5.5	(0.85)R	.5770.02	12004102				(U.85)R	12240.04	
01106+04	10.00			U	5145+03		10100111		
1-5:C7758+03	.1292+03	2642+02	2735+01	1-5:0	1175+04	-2092+04	1839+04	3037+03	.4254+04
1-5:54497+02	·1274+03 <b>-</b> ·1948+03	4766+02	.1296+02	1-5.5	.7120+03	1582+04	3922+04	1590+04	3563+03
N.C OR 5	AUVANCE RATIO, MU = 0.4			N/L OK		AUVANCE	RATIO: MU = 1.0		
	(U.21)R				-		(0.0110		
0 +6259+03	(0.51)K			U	~.3201+04		(0.21)R		
1-5.C98H2+03	•4U03+03 -•4779+03	3271+02	9920+02	1-506	~.4819+04	.8262+03	5168+04	5307+04	-,2949+04
1-5/5 :1079+04	5552+031788+03	2306+03	1809+03	1-5/5		4283+04	•1658+04	1118+04	.2799+04
- 0/2	(0.35)R						(0.35)R	- 12220104	12177107
υ •1325+04				υ	4857+04				
1-5.C2285+04	1089+046265+03	5014+02	3030+02	1-5.C	7310+04	• 8983+03	8481+04	4668+04	3086+04
1-5/5 .1813+04	4950+035395+03	1393+03	1905+03	1-5,5	5270+04	5663+04	.7880+03	8408+03	,2710+04
	(0.45)R						(0.45)R		
0 •1465+04 1-5•C -•3101+04	•1632+045306+03	1037+03	.3518+02	U 1 – b – r	~.5160+04 ~.7805+04	. /au1+03	1035+05	26.40.40	
1-5/5 -2031+04	2705+038934+03	4650+02	1112+03	1-5,5	7803+04 -4870+04	>893+04		2462+04 .2694+03	'1788+04 .5944+03
1-3/3 12031+04	(0.55)R	-14030102	1112703	1-3/3	.4070104	-43693704	(0.55)R	.2094+03	,3944703
0 •1020+04	10155711			U	4707+04		101331K		
1-5.C3528+D4	.2077+042438+03	-,2150+03	.6453+02		6930+04	•0508+03	1152+05	.1977+03	.4722+03
1-5:5 .1858+04	.6130+011281+04	2299+02	.3424+02	1-5:5	.3731+04	5716+04	2263+04	2053+04	3194+04
	(0.75)R						(0.75)R	_	
01035+04				U	19//+04				
1-5.C2367+04	•1895+04 •5003+03	4340+03	3009+02			•+295+03	9110+04	.2922+04	.4015+04
1-5,5 .4682+03	-3257+031511+04 (0-85)R	2128+03	.3099+03	1-5:5	<b>د</b> 0+4450.	3896+04	3388+04	•4424+04	8929+04
01106+04	(U+857K			u	7302+03		(0.85)₽		
1-5:0 -:11:6+04	·1100+04 ·4524+03	3168+03	5167+02		0403103	.2476+03	-,5000+04	.1942+04	.2888+04
1-5.54024+01	.2286+039653+03	1960+03	.2405+03	1-5/5	1002+03	2093+04	2082+04	2978+04	6184+04
			12.00.00			1-030-01	VE., 02.04	***************************************	
N.C OR 5	ADVANCE RATIO: MU = 0.5			NO GIK		AUVANCE R	ATIO: MU = 1.4		
	40.000				-				
0 .2160+03	(D.21)R						(U.21)R		
1-5+C1325+04	•4337+03 <b></b> 7980+03	2291+03	4516+03	1-5-7	~.U/334P4 ~.122/4U5		75.77		
1-5.5 .1422+04	9771+031366+03	7937+03	4601+03	1-5/5	.7451+114	40+85+04 40+84c-+•=	-,3523+04 ,8462+04	2307+04 1438+03	.5848+04
1 0.0	(0.35)R		-14001103	1-313	174517114		(0.35)8	1430+03	.2512+04
0 •7706+03	10100711			ú	83/2+04		(0.557)(		
1-5.C2886+04	·1480+04 -·1223+04	1794+03	3220+03		1714+05	/4+04	7570+04	3151+03	.3724+04
1-5/5 -2505+04	1218+046651+03	5886+03	5631+03	1-5/5	.0348484		·HB32+04	1312+02	.2167+04
	(0.45)R						(U-45)R		*
0 •9066+03				U	79.3+04				
1-5.C3828+04 1-5.5 .2943+04	-2340+041220+04 1137+041333+04	2010+03 2085+03	5646+02 3874+03		1710+05	10.7109	1036+05	.2837+04	.4110+03
1-3/3 12943+04	-:113/704 -:1333704 (0.55)R	-,2085+05	38/4+03	1-515	• 6955+ 04	÷+52011004		.1632+04	.2911+03
0 .5344+03	10.00/K			O	6552+04		(U.55)K		
1-5.C4288+04	.3046+048671+03	3883+03	.2538+03		1390+No	* 14**1 * U4	1 104+05	• 0480+04	2610+04
1-5.5 .2905+04	9085+032215+04	.1644+03	.2907+02	1-5/5	.4004+04	/919193		.41172+04	2701+04
	(U.75)R	,,		3/3	, 4007104		(0.75)8	141176764	2/01704
01230+04				U	2665+04				
1-5:02821+04	·2779+04 ·4304+03	9567+03	.5441+03	1-5:6	3200104	11,9+04	0.0194.04	.0774+04	3651+04
1-5.5 .1271+04	2776+033192+04	.3439+03	.9754+03	1-5.5	.5830+03	*10H7+UH	• 5º286+09	. 92424.04	6370+04
	(U.85)H						(0.05)R		-
01177+04 1-5:C1360+04	•1600+04 •5320+03	7349+03	.3587+03	U	1095104				
1-5:5 -4322+05	7856+022151+04	/349+03 .1816+03	.3587+03		3862103	1170105	- 400000000	* , ", > ( , + () 4	1964+04
1-313 14322103	-12131704	11010103	. 1013703	1-5/5	-19512405	**********	*** */4 * 0.4	*1-1151-7 + 114	-,4183+04

# TABLE 1. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOP AN ARTICULATED BLADE

#### (I) MP = 0.5 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

			FF = 0.	100447(I+MU)+#Z	1 FOR MU = 0.1	711.071.47				
N.C OR S		AUVANCE RATIO: MU = 0.25			N+C OR	s	AUVANCE: R	ATIO: MU = 0.7		
						-				
		(0.21)R			4.			(0.21)R		
. 0	·8591+03	1000.03 - 1601.03	-,3074+02	8553+01	0 1-5,C	5442+03 22 <sub>2</sub> 2+04	030.03	3697+04	- 1000.00	
1-5.C 1-5.S	6842+03 .5077+03	-1002+031641+03 1718+034507+02	.1447+01	.2626+01	1-5,5	.2064+04	0830+03 1594+04	3697+04 -1019+04	1480+04 .1136+04	3790+03 .1065+04
1-212	*30//+03	(0.35)R	*144141	*5050101	1-313	12007704		(0.35)R	*1130404	. 1003404
٥,	.1311+04	1013371			0	6202+03		10135711		
1-5,0	1242+04	.2306+032169+03	4052+02	6910+01	1-5+C	32<1+04	9365+03	5509+04	1844+04	4447+03
1-5.5	.7696+03	1855+031110+03	.3221+01	1661-00	1-5+5	.2699+04	2263+04	.9622+03	.1755+04	.8610+03
_		(0.45)R			0	9340+03		(0.45)R		
0	-1289+04	.3259+032146+03	+.4412+02	3975+01	1-5.0	3551+04	7058+03	6215+04	1747+04	- 2004 - 07
1-5.C 1-5.S	1514+04 .8204+03	1524+031618+03	.2362+01	-,2433+01	1-5,5	-3351+04 -31u8+04	2449+04	•5713+03	.2038+04	3906+03 .3005+03
1-3/3	10201103	(0.55)R	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	14.00.01		.0200.04		(0.55)R	*5030*04	.3003403
a	.8968+03	1000711			O	9491+03				
1-5.C	1553+04	.3861+031804+03	-,4626+02	1739+01	1-5.C	3454+04	3620+03	6259+04	1427+04	2B29+03
1-5,5	.7216+03	1051+031961+03	1121+01	3204+01	1-5,5	•29bb+04	-• < 362+04	.6410+02	.2109+04	3643+03
		(0.75)R			n			(0.75)R		
. 0	1763+03	·2913+036981+02	3606+02	1040+01		6025+03 21u2+04	+1305+03	3915+04	5531+03	-,6393+02
1-5+C 1-5+S	8767+03 -2581+03	-2913+036981+02 2802+021530+03	7717+01	~.5694-00	1-5,5	.1691+04	1372+04	4832+03	.1379+04	-,9107+03
1-313	*2301403	(0.85)R		-,5074-00		*10,1.04	********	(0.85)R	120,7104	-47201443
ó	2535+03	1410071			0	2944+03				
	3950+03	.1491+032604+02	1953+02	~.8263-00	1-5.C	1068+04	•1212+03	1984+04	2140+03	-,1280+02
1-5.5	.8210+02	9199+01 <b></b> 7916+02	5410+01	.2732-00	1-5.5	.7950+03	6500+03	3197+03	.6800+03	-,5534+03
	_					_				
N+C OR S	•	AUVANCE RATIO: MU = 0.4			N.C OR		ADVANCE F	RATIO, MU = 1.0		
	-	(0.21)R				-		(0.0110		
n	.6472+03	(U+217K			D	23bJ+0#		(0.21)R		
	1051+04	-2217+036399+03	1960+03	9350+02		4162+04	1061+04	5241+04	.3817+03	.3278+03
1-5,5	.9509+03	302+031338+03	.1268+02	.3884+02	1-5/5	.3049+04	2793+04	.4776+04	-2212+04	1147+03
		(u.35)R						(U.35)R		• • • • •
0	.1032+04				. 0	3311+04				
	1911+04	.5762+039019+03	2485+03	6875+02		5540+04	1503+04	7850+04	.1424+04	.2376+03
1-5+5	·14±1+04	5644+033A63+03 (0.45)R	.5393+02	.1292+02	1-5,5	. 3920+04	3557+04	•6642+04	.3547+04	3479+03
0	.1015+04	(0.45)K			U	3510+04		(0.45)R		
1-5,C	2335+04	.0439+039364+03	-,2692+03	2860+02		5657+04	1622+04	8876+04	.2376+04	.4061+02
1-5.5	-1607+04	0331+036073+03	.7461+02	1034+02	1-5.5	. Jau /+04	5459+04	.7051+04	4223+04	8612+03
		(0.55)R						(0.55)R		
Û	•6664+ü3				U	3311+64				
	2402+04	.1014+048318+03	2896+03	4138+01	1-5.0		1553+04	8911+04	.3124+04	1788+03
1-5.5	.1437+04	5223+037843+03 (0.75)R	.7079+02	1900+02	1-5,5	.33.7+04	<b></b> 2930+04	.6636+04 (0.75)R	.4443+04	1315+04
n	2656+03	(U.75)K			14	1810+84		(U./5/K		
1~5,6	1307+04	.7655+033601+03	2457+03	.1324+02	1-5,€		0794+03	5463+04	.2634+04	-,3235+03
1-5/5	.5352+03	<086+036759+03	.1276+02	.3483+01	1-5:5	********	1268+04	.3637+04	2922+04	1245+04
		(0.85)R				-		(0.85)R		
0	2870+03				U	-・いろり きょりょ				
	6100+03	-3900+031430+03	1371+03	.4895+01		11_++0+	-••096+03	2616+04	.1375+04	1888+03
1-5+5	1765+03	0259+023617+03	2808+01	.7685+01	1-5.5	•03_0+03	>237+03	.1673+04	.1431+04	6655+03
HIC OR	S	AJVANCE RATIO: MU = 0.5			N.C OR	5	6-VANCE	KATIO: MU = 1.4		
	-									
		(0.21)R						(U.21)R		
0	-3571+03		- 63301-3	0057.07		4990+114			_	
1-5.6	1363+64 -1363+64	452+031185+04 9298+038541+02	5330+03 .5101+02	2257+03 .1721+03		7544+04	· ro59+04		.7066+04	.1567+04
1-312	-1303+04	9298+038541+02 (0.35)R	*2101405	.1/21403	1-5.5	. 5440464	315+04		3726+03	2611+04
n	• 656/+03	10.2214			ŧı			(0.35)R		
1-5.6	24,1+04	•an38+031772+04	6150+03	1936+03	0 1~5•C	6/ <sub>4</sub> 2+04 9241+04	• 2543+04	1604+04	•1151+n5	450-1
1-215	-2001+04	1324+044507+03	.1575+03	.7545+02	1-5/6	+0700+04			.1151+05 .350 <b>3</b> +03	.1590+04 3043+04
		(0.45)R			_ 5,3			(U-45)R		-,3073704
U	•6350+03				U	0712+04				
1-5.0	-,2941+04	. 1496+03 1934+04	6065+03	1024+03	1-5+6		• <b>2966+04</b>		.1381+05	.1126+04
1-5.5	.2521+04	1403+048513+03	.2445+03	3780+02	1-5,5	+64z0+U4	2230+04		.1197+04	2669+04
0	.3372+03	(U.55)R						(0.55)R		
1-5,6	3012+03	•i203+041819+04	6026+03	2978+01	0 1-5.6	6200+04		1601+04	1850.05	.4954+03
1-5/5	-2164+04	1292+041247+04	6026+03 -3055+03	2978+01 1176+03	1-5/6		• 3548+64 • 3520+63		.1454+05 .1947+04	.4954+03 1943+04
- 4.3		(0.75)R		-112/0103	1-313	* 3207704		(U.75)R	*****	-,1793709
U	-,4122+03				0	3100+64				
1-5.C	1711+04	•9492+03 -•91u1+03	4883+03	.7978+02	1-5:0		+1909+04	8651+03	.9428+04	2918+03
1-5.5	.9901+03	0384+03 1264+04	.2431+03	9249+02	1-5.5	• 2 U o 7 + U 4	•3057+03	.8154+04	.1872+04	4895+03
_	- 30	(0.85)R						(0.85)R		
0 1-5•C	3462+03 7765+03	•4877+03 <b>-</b> •3936+03	2739+03	.4933+02	) 1-6	1399+04				
1-5/5	.3977+03	-+477+033936+03 <776+037088+03	2/39+03 -1260+03	.4933+02 3930+02		9407+03	139+03		4561+04	2295+03
1-3/5			*1E0U+U3	3930+02	1-5,5	•9102+12	• >635+03	.3711+04	.9932+03	1256+03

# (A) MP = 0.1 FM = 0.001 (FOR MU = 0.25.0.4.0.5) FM = 0.300447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11 011 110 = 017711071147		
N.C UK S	ADVANCE RATIO, MU = 0.25		H,C OK 5	ADVANCE RATIO, MU = 0.7	
	(0.21)R			(0.21)R	
0 .4829+112			0 .1509+03 1-5+6 .4115+02		
1-5.0 .1203.02	.5420+02 .1176+02 .4152+01 .553+01 .2156+02 .2043+02	3224+01	1-5.6 .4115+02	.2076+03 .7758+02	.3192+02 .2072+02
1-5.58575+02	.5h53+01 .2156+02 .2043+02	.2561+01	1-5+53127+03	.1605+031655+02 (0.35)R	4035+02 .6540+02
0 .1614403	(0.35)R		0 .3505+03	(U.35)K	
1-5,0 .3171+02	.9066+02 .1564+02 .4346+01	1559+01	1-5.6 .9776+02	.3452+03 .1203+03	.1988+02 .2542+02
1-5,51905+03	.1742+02 .3568+02 .2495+02	3820+01	1-5/562/4113	.3049+032442+02	4188+02 .4804+02
	(0.45)R		- 1.1	(0.45)R	
0 .2452+03			E0+690m. 0		
1-5.6 .4513+02	.1101+03 .1798+02 .4054+01	.1908+01	1-5,6 .12,94,93	.4104+03 .1640+03	.4990+01 .2031+02
1-5:52566+03	.2451+02 .4373+02 .2351+02	.6550+01	1-5.579.9+03	.3621+033167+02 (0.55)R	1882+02 .1327+02
0 .3164+03	(0.55)R		0 .55034.03	(0.55)K	
1-5,6 .5476+02	.1260+03 .2263+02 .4572+01	.7230+01	1-0,0 . 10004 13	.4452+03 .2394+03	3522+01 .7649+01
1-5.53023+03	.2725+02 .5060+02 .2060+02	,1276+02	1-5:51.722+03	.4209+034506+02	.2791+022604+02
	(0.75)R			(0.75)R	
0 ,2456+03			D .32×5+03		-014.00
1-5.0 .4077+02	.1204+03 .3761+02 .9396+01	.1825+02	1-5.C 7109+02	.3385+03 .4135+03 .2777+037651+02	.2261+02 +.2943+02 .1484+03 +.5847+02
1-5+5 =-2264+03	.0803+01 .5095+02 .1453+02 (0.85)R	.3312+02	1-5:5 6.5070:03	(0.85)R	.14844033047402
0 .1296+03	10.0371		0 .1625+33	(0.03///	
1-5.6 .2002+02	.6042+02 .3141+02 .8540+01	.1522+02	1=5+021/5+02	.1948+03 .3256+03	.2805+022853+02
1-5.51200+03	3627+01 .3496+02 .9943+01	.2932+02	1-5/52150+03	.1377+036030+02	.1285+033777+02
NIC OR S	ALVANCE RATIO: MU = 0.4		NIC UK S	ADVANCE RATIO, MU = 1.0	
				43.0430	
0 .7924+02	(0.21)R		0 2-00-03	(0.21)R	
1-5.6 .17.56+02	.1126+03 .8231+01 .2921+01	6873+01	0 .2an9+03 1=5+0 .9379+02	.2927+03 .1350+03	.7817+02 .1028+03
1-5.51391+03	.6179+021120+02 .1258+02		1-5.55703+93	.3808+031101+03	+.6709+02 .4259+02
	(0.35)R			(0.35)R	
0 .2175+03			0 .400+03		
1-5,6 .4749402	.1002+03 .1098+02 ÷.1371+01	6266+01	1-5.6 . [846+113	.4652+03 .2427+03	.6450+02 .9938+02
1-5.53107+03	.1221+032019+02 .1032+02 (0.45)R	4729+01	1-5.51050+00	.6616+031596+03 (0.45)R	6974+02 .6259+01
0 .3133+03	(U.45)K		0 .6649+03	(U.45)K	
1-5.0 .6749+02	.2235+03 .1614+025906+01	-,4145+01	1-5:6 .2276:03	.5473+03 .3602+03	.3585+02 .5652+02
1-5.54188+03	.1575+032582+02 .3892+01	6435+01	1-5.5 1270+44	.7868+031889 <b>+03</b>	-,3362+022158+02
	(0.55)R			(0.55)R	
D .3H39+U3	,		0 .6955+03		
1-5.C .6043+02	.2512+03 .2860+021012+02		1-5.0 .2332+03	.5968+03 .5385+03 .8155+032256+03	.1098+029827+01 .3679+022351+02
1-5:5 4925+03	.1816+033110+02 +.4706+01 (0.75)R	-,4812+01	1-5.51307+04	-8155+032256+03 (0.75)R	.36/9+022331402
0 .2913+03	(U./5/K		0 .5577+93	(01/3/10	
1-5:6 .5160+02	.2277+03 .7141+029705+01	2724+01	1-5.6 .9630+02	.4909+03 .8305+03	.1322+021251+03
1-5-53628+03	.1405+033272+021742+02		1-5:56383+03	.4640+032655+03	.1926+03 .7003+02
	(0.85)R			(0.85)R	
0 .1508+03			0 .1394+03	4005107	.1732+029935+02
1-5.C .2195+U?	.1464+03 .6326+02	3178+01 .1509+02	1-5+C .2501+02 1-5+5 -+2349+03	.2925+03 .6025+03 .2092+031833+03	.1732+029935+02 .1564+03 .7591+02
1-5:518:1:03	· · · · · · · · · · · · · · · · · · ·	1203+05			.1304403 .1331402
N.C OK S	ADVANCE RATIO, MU = 0.5		N+C OH S	AUVANCE RATIO: MU = 1.4	
				(0.21)R	
	(0,21)R		0 .4941+03	10.2116	
0 .1030+03	.1328+03 .2491+02 +.8448+01	1266+02	1-5-6 .2767+03	.3734+03 .1342+03	.2162+037823+02
1-5.0 .2193+02 1-5.51895+03	.9944+021404+012598+02		1-5:51071+04	• <b>+459+03</b> -• <b>4115+03</b>	1061+031147+03
1-5/5 (145/00)	(0.35)R			(0.35)R	
0 .2(.40+03			0 -8048+03		
1-5.6 .5935+02	.2216+03 .3471+021976+02		1-5,6 .4110+03 1-5,51833+04	•3454+03 •1516+04 -5689+03	.1832+035975+02
1-5:54071+03	.1930+035999+013451+02	.1152+02	1-3/21833404	•1516+04 -•5689+03 (0•45)H	1307+031650+03
	(0.45)R		£0+1+0P* 0	(0.437)	
0 .3714+03	.2596+03 .4735+022394+02	3272+01	1-516 .4204+03	.J707+U3 .5741+O3	.8361+02 .4085+01
1-5:C .8181+02 1-5:S5390+03	.2459+031393+022907+02		1-5:52100+04	-1715+046094+03	7708+021149+03
7-013 -1003-100	(0.55)R		0	(U.55)H	
0 .4423+03	.2738+03 .7502+02 =.2078+02	.2032+01	0 +8737+03 1=5+C +351.0+03	• u193+03 • 8667+03	4025+02 .1048+03
1-5.6 .9174102			1-5:52024+04	•0193+03 •8667+03 •1676+046100+03	4025+02 .1048+03 .5047+02 .3711+02
1-5+56147+03	.2/90+032824+021161+02 (0.75)R	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2 3.3 1202.104	(U.75)H	.5571702 13711702
0 .3006+03	(01/3/6		£0+210E• U		
1-5,6 .3464142	.1747+03 .1649+03 .1660+02		1-5+C +5Uz 7+UZ	.5783+03 .1150+04	1790+03 .2621+03
1-5,53799+03	.2036+036620+02 .5280+02	5028+02	1-5/5 -/762+03	+0414+034489+03	.3350+03 .4182+03
	(0.85)R		n	(0.85)8	
0 +1396+93	.8731+02 .1432+03 .2466+02	3783+01	0 +1355+03 1=5+0 -+2057+02	.3004+03 .7616+03	~.1235+03 .1890+03
1-5+6 .2909-00	.8731+02 .1432+03 .2466+03 .1089+035675+02 .5502+03		1-5+52177+03	•3530+03 =•2558+03	.2631+03 .3368+03
1-5:51623:03	*IndAt() = *2012.05 *200E(0)				

NOTE- DIVIDE LISTED VALUES BY 100,000 TO OBTAIN TRANSFER COEFFICIENTS

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## TABLE 2. BLADE TWIST THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

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		PP = 0.00112(14M0)**2	(FOR MO = 0.771.071.4)		
NIC OR S	AUVANCE RATIO: MU = 0.25		N+C OR S	ADVANCE RATIO: HU = 0.7	
	(0.21)R			(0.21)R	
0 .5908+02			0 •1715+03	1012378	
1-5.C .1189+02	•4945+02 •1631+02	.4553+011523+02	1-5.C .3715+02	·1995+03 ·9754+02	·2135+02 .9544+02
1-5+59047+02	.3293+01 .2398+02	.1530+02 .1037+02	1-5.53151+03		1942+023753+02
	(0.35)R			(0.35)R	
0 .1621+03			0 •3459+03		
1-5.0 .2916+02	·o<18+02 .2482+02	.6835+01 <b></b> 1013+02	1-5,C .7758+02	.3254+03 .1558+03	.1342+02 .8543+02
1-5:51874+03	·1074+02 ·3965+02	.2043+02 .1172+02	1-5+55970+03	·2589+03 -·1117+03	2119+023991+02
	(u.45)R			(0.45)R	
0 .2352+03			0 •4425+03		
1+5+C .3992+02	• <del>3908+02</del> •2956+02	.77 <del>94</del> +01 .1045+01	1-5,0 .9719+02	•3801+03 •2013+03	.3969+01 .3580+02
1-5,52455+03	.1483+02 .4864+02	.2210+02 .1129+02	1-5.57361+03		1407+022205+02
	(0.55)R			(0.55)R	
0 •2825+03			0 •4769+03		
1-5.C .4496+02	•1085+03 •3382+02	.8268+01 .1571+02	1-5.C .9831+02	.3922+03 .2541+03	1047+013712+02
1-5.52754+03	•1516+02 •5538+02	.2351+02 .1155+02	1-5.57714+05	·3173+031684+03	9366-00 .1122+02
	(0.75)R			(0.75)R	
0 +2135+03			0 .2894+03		
1-5.C .2775+02	•#406+02 •3247+02	.6514+01 .3324+02	1-5,C .4116+02	•∠492+03 •2789+03	.7332+011383+03
1-5/51899+03	.3204+01 .4859+02	.2189+02 .1287+02	1-5/54536+03	•1809+03 <b>-•175</b> 8+03	.2276+02 .70 <del>29+</del> 02
0 .1121+03	(0.85)R			(0.85)R	
0 •1121+03 1-5•C •1273+02			0 .1351+03		
	·4715+02 ·2014+02	.3754+01 .2293+02	1-5.C .1277+02	•1246+03 •1751+03	.7843+019788+02
1-5:59651+02	1040+01 .2883+02	.1376+02 .8817+01	1-5.51930+03	•5283+02 <b></b> 1092+03	.1755+02 .5239+02
N.C OR S	A.WANGE BARRS 181				
NIC OR S	AUVANCE RATIO: MU = 0.4		N+C OR S	AUVANCE RATIO: NU = 1.0	
	10.0110				
0 .6834+02	(0.21)R			(0.21)R	
1-5.C .2165+02	1141+03 611, 01	3429-001502+02	0 .2831+03		
1-5.51477+03	.1141+03 .611; 01 .5090+021082+02	3429-001502+02 .8191+01 .4763+01	1-5.C .9565+02	•3183+03 •130£ J3	·2423+026623+01
1-3/314//+03	*3090+02 -*1082+02 (0.35)R	.8191+01 .4/63+01	1-5/55576+03		7615+028986+02
U +213V+05	(0.3514			(0.35)R	
1-5.C .4972+02	•1464+03 •9222+01	3818+011311+02	0 •5014+03 1-5:C •1633+03		
1-5:53063+03	•9b04+021826+02	3818+011311+02 .7634+01 .2051+01	1-5.C .1653+05 1-5.S9731+03	-5004+03 -2363+03	.1224+025516+01
1-3/3 -13005/03	(0.45)R	.7034401 .2031401	1-3/24/31+03	•5328+034261+03	8488+029680+02
0 +2959+03	(0.43/K		0 •5998+03	(0.45)R	
1-5,C .6065+02	·2225+03 ·1373+02	7243+016748+01	1-5,C .1843+03	•5743+03 •3252+03	1004.01 5004.04
1-5:54012+03	.1208+032253+02	.5121+015581-00	1-5.51143+04		1806+01 .5906+01 6619+025596+02
	(U.55)R	49751.01 -19701-00	1-3/3 -11143704	(0.55)R	6619+025596+02
0 .3454+03	(01337)		0 •6079+03	(U.33)K	
1-5.C .7424+02	·2417+03 ·2168+02	1061+02 .1093+01	1-5+0 +1666+03	•⊃#39+03 •4173+03	1112+02 .2767+02
1-5+54501+03	·1319+032555+02	.2435+011530+01	1-5.51125+04		
	(0.75)R	-11550101	1-3/3 -11125/04	(0.75)R	3354+02 .1915+02
0 •2503+03			U +3264+03	(0.15/R	
1-5.C .4570+02	·1857+03 ·3568+02	1158+02 .9827+01	1-5,C .5336+02	• 3665+03 • 4261+03	5225+01 .6095+02
1-5:53096+03	.u874+022177+02	.2225-00 .2860+01	1-5,55421+05	-<960+034789+03	.2349+02 .1415+03
	(0.85)R	***************************************	1 3/3 -13421(05	(0.85)R	.2047702 .1413403
0 •1293+03			0 •1445+05	(0.05/K	
1-5.C .2109+02	·1040+03 •2521+02	7098+01 .6820+01	1-5,C .1129+02	•1816+03 •2536+03	2432-00 .4169+02
1-5+51572+03	·4500+021272+02	-2468-00 .3272+01	1-5.52172+03	·1255+032736+03	.2122+02 .1021+03
			2 2.0	12235.03	11111111 11011103
N+C OK S	ADVANCE RATIO, MU = 0.5		NIC UK S	ADVANCE RATIO: MU = 1.4	
	(U.21)R			(0.21)R	
0 .1140+03			0 •4648+03		
1-5.0 .2309+0∠	•1345+03 •1953+02	2297+02 .1229+02	1-5+C .2404+03	·4522+03 ·2273+02	1158+025932+02
1-5,51925+03	•u998+024355+01	2310+01 .1984+02	1-5.59981+03	.7389+036764+03	8365+02 .1975+02
	(u.35)R		· - · · · · ·	(U.35)R	
U .2599+U3			0 •7253+05		
1-5.C .509u+02	.2237+03 .3087+02	3355+02 .1088+02	1-5/C .3456+03	·o679+03 ·1530+03	4335+024783+02
1-5/53967+03	-1639+031182+02	8452+01 .1056+02	1-5/51622+04	·1121+049946+03	1025+031026+02
	(0.45)R			(0.45)R	
0 •3498+03			0 •7969+03		
1-5+6 -7743+02	•<635+03 •4597+02	3175+02 .1454+01	1-5,C .3567+03	•7495+03	7608+02 .3136+ <b>0</b> 1
1-5/55110+03	·2015+032337+02	1162+025440+01	1-5.51816+04	213+041130+04	6939+024541+02
	(0.55)R	<del>-</del>		(U.55)R	
0 .3941+03			0 .7464+03		
1-5.0 .8002+02	·2745+03 ·/164+02	1983+021505+02	1-5,0 .3067+03	•7603+03 •4304+03	1085+03 .8214+02
1-5.55559+03	· 2150+03 - 4150+02	1131+022431+02	1-5:51669+04	·1110+04 -·1178+04	5813+027794+02
	(0.75)R			(U.75)R	
0 .2566+03			0 .3440+03		
1-5.0 .4951+02	· 1760+03 • 1124+03	-1824+024426+02	1-5.6 .1031+03	•>016+03 •4477+03	1113+03 .1754+03
1-5,53368+03	-1360+036831+02	2886-014180+02	1-5:50991+05	•4756+03 -•842 <del>9+</del> 03	.7873+018160+02
4. 4.05.1.5.	(u.85)R			(0.85)R	
0 -1240+03			ú •1379+05		
1-5:C .2132+02	·0868+U2 .7871+02	·1895+023280+02	1-5.C .3020+02	·2548+03 ·2568+03	6383+02 .1142+03
1-5.51559+03	-0661+024773+02	.2809+012755+02	1-5+52498+03	·1807+U34435+03	.1317+024570+02

#### TABLE 2. Blade Twist Transfer Coefficients for an articulated blade

#### (E) MP = 0.1 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

N+C OR S	AUVANCE RATIO, MU = 8.25	N.C OR S	AUVANCE RATIO, MU = 8.7
	(0.21)R		(0.21)R
0 .7273+02		0 •1694+03	- '
1-5.C .9727+01		1621+01 1-5.C .5751+02	·2047+033769+023812+025723+01
1-5.58800+02	.3831+01 .8777+01 .1196+02	3316+01 1-5.53179+03	-6348+024092+02 .2787+02 .1792+01
9 .1455+93	(0.35)R	0 •2542+03	(0.35)R
1-5.C .1788+02	.5591+02 .5794+02 .5093+01 .:	2564+91 1-5.C .8294+02	.2886+034847+025390+021005+02
1-5.51545+03		7793+01 1-5.54616+03	.8745+026945+02 .44£8+02 .7860+81
1101-100	(8.45)P		(0.45)R
0 .1863+03		0 •2865+93	
1-5.C .2182+02		2806+01 1-5.C .9104+02	-3103+034758+025813+021274+02
1-5,51866+03		3877 <b>+81</b> 1-5.55090+03	.9206+028619+02 .5230+02 .1367402 (0.85)R
0 .2045+03	(0,55)R	0 .4941+83	(U.55)K
1-5.C .2222+02	•o361+02 •6718+02 •5630+01 •	2528+81 1-5+C +8914+02	-2973+034085+025587+021422+02
1-5.51916+03	•7248+01 •1856+02 •1562+02 •*	7019+01 1-5+55019+03	.u614+029459+02 .55£0402 .1854402
	(0,75)R		(0,75)R
·13U2+03		ù •1844+03	
1-5.C .1212+02	.3843+02 .4378+02 .3945+01 .	9563*\$L 1=5+C -5318+02	·1705+031832+023222+021083+02
1-5.51113+93	.2050+01 .1169+02 .9133+01 . '0.85)R	2762401 1-5:53026+03	-4716+026715+02 -3696+02 -1698+02 - (0.85)R
0 .6209+02	9+05/K	0 .8993+82	(0.85)K
1-5.C .5335+01	.18#0+02 .2180+02 .2048+01 .	3191#80 1-5.C .2545+92	-8039+027740+011523+025254+01
1-5,55121+02	.3702-00 .5638+61 .4410+01 .	131401 1-5:51453+03	.2185+023395+02 .1838+02 .8807+01
N.C OR S	ADVANCE RATIO, MU = 8.4	N.C OR S	ADVANCE RATIO, MU = 1.0
	(0.41)	***************************************	(0.41)0
0 .9717+02	(0.21)R	.0 .2541+03	(0,21)R
1-5.C .2153+02	.9174+02 .8327+019180-00	9438-00 1-5.C .4731+02	.2366+032930+0366 <b>76</b> +02 .1120+81
1-5.51489+03	·1980+023271+01 -1479+02	581+01 1-5+S4859+03	.1175+031060+02 .4484+021128+82
	(0.35)R	· · · · ·	(0.35)R
0 +1839+03		: 0 -3624+93	
1-5.C .3722+02	·1404+03 ·1223+823278+01	1304441 1-5#C -6488+82 1032482 1-5#S6775+83	-3209+034117+039695+025326+00
1-5.52605+03	.3373+024195+01 .2020+02 .	1032+82 1-5456775+83	.1590+032972+R2 .6988+021795∔82 (0.45)R
0 .2318+03	10.457K	. L3935+83.	1017378
1-5.C .4430+02	.1591+03 .1465+025010+01	L/35+81 1+5+C +6798+02	-3328+034412+031069+032592+01
1-5.53145+03	· 3917+024407+01 .2142+02 .	968401 1-6:57208+03	·1646+034607+02 .8254+022126+02
	(0.55)R		(0.55)R
0 .2468+03	10-0-0-	9 .3794+03 2372+01 1-5:C .6306+02	Tobacon cannon cannon caralas
1-5,C .4465+02 1-5,S3236+03		2372401 1-5+C +6306+02 3985401 1-5±S6809+03	.3051+034193+031047+034517+01 .1506+035824+02 .8626+022226+02
1-3/33230403	(0,75)R	2402467 T-012 -10808482	-1586+035824+92 -8626+022226+82 (0.75)R
0 •1526+83	1037378	Q +2173+03	10113/11
1-5,C .2468+02		2686+01 1-5:0 .3361+02	-1589+032342+036162+024635+01
1-5.51895+03		5364+01 1-5:53744+03	.7866+024739+92 .8649+021454+92
- ********	(0,65)R		(0.85)R
0 .7204+92 1-5:C .1105+02	.4533+02 .7691+011961+01	.0 →1016+Ω3 1589+01 1=5≠C •1529+02	.7160+021085+032910+022515+81
1-5.58763+02		2707+01 1-5·S1726+03	2515+01 3542+022454+022743+027106+01
	•	2,0,102	**************************************
N.C OR S	AUVANCE RATIO, MU = 0.5	N/C OR S	ADVANCE RATID: MU = 1.4
	(0.21)R		
0 +1166+03	(V)21/R	0 .3501+02	'0. <b>£</b> 1)R
1-5,C .2965+02	·1220+03	0 .3501+92 +425+01 1-5:C .1093+03	.3475+033347+039958+021728+02
1-5.51917+03	•4060+021387+02 .1052+02	1423+01 1-5.57265+03	.2146+03 .1130+03 .2294+03 .2751+01
	(0.35)R	2 0.0	(0.35)R
9 .2152+03 1=5,C .5094+02		0 .4791+03	
1-5/53333+03		5184÷\$1 1=5,C .1346+83 1976÷81 1=5,S +.0798+83	.4660+034569+031483+033513 <del> </del> 02
2 5/3 -/5555/03	(0.45)R	1976+81 1-5.59798+83	.2876+03 .1486+02 .3397+03 .4027+01
0 .2655+03	***************************************	0 .5098+03	(U.45)K
1-5.C .6024+02	·2094+03 ·3934+023248+02	7819401 1-5,6 .1381+03	.4779+034764+031669+034781+02
1-5+5 3967+03	.7531+022864+02 .14£2+02	5427-69 1-6.51009+04	.2949+03 .1494+03 .3799+03 .4463+01
0 •2755+03	(0.55)R		(0.55)R
1-5.C .6022+02	.2021+03 .4509+0228£1+02	954+01 0 .4619+03	
1-5.53967+03			.4314+034383+031693+035536+02
	(0.75)R	2681+0) 1-5.5 +.9159+03	•2662+03 •1319+03 •3756+03 •4373+01
0 •1599+83		0 -2414+03	1017378
1-5.C .3251+02		1029+02 1-5,C .6250+02	·2160+03 -·2279+039833+024053+02
1-5.52170+03	-3419+023527+02 .1131+02 .	7881+01 1-5.5 =.4634+03	-1332+03 -6285+92 -2218+03 -2546 <sup>1</sup>
0 •7308+02	(0,85)R	•	(0,85)R
1-5.C .1436+02	.4885+02 .2192+022619+01	9 •1084+03 5967∔01 1=5,C •2759+92	0570.00 400.07 0500.00
1-5.59616+02		5967+01 1=5,C .2759+02 +803+01 1=5,S +.2054+03	.9530+021022+034628+022015+02 .5878+02 .2745+02 .1042+03 .1190+01
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## TABLE 2. ULAUL TAIST THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (D) MP = 0.3 FP = 0.001 (FOR MU = 0.25:0.4:0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7:1.0:1.4)

N.C OK S	AUVANCE RATIO: MU = 0.25		NIC OR S	AUVANCE RATIO: MU = 0.7	
	(v.21)R			(U.21)R	
0 •1625+03	1012271		0 .553J+03	_	
1-5/6 .3905+02		18+01 .2073+01	1-5.6 .3375+03	.9023+02 .1014+03	.2971+03 .1904+03
1-5+52453+03		32+01 .9540-00	1-5.59719+03	•9471+031799+03 (0.35)R	.1366+03 .5785+02
0 .5202+03	(U.35)R		0 .1134+04	(0.3578	
1-5,0 .1303+03	772+02 .3021+02 .5	91+01 .2151+01	1-5.C .b218+03	3826+02 .2416+03	.2308+03 .2231+03
1-5/55303+03		+67+01 .5516-00	1-5.51761+04	·1599+U42347+03	.1216+03 .5138+01
	(U.45)R			(0.45)R	
0 .78u3+03	.4902+02 .4044+02 .1	839+01 .1155+01	υ .1430+04 1−5+C .73≥9+03	1433+03 -4287+03	.8742+02 .1510+03
1-5:C .1936+03 1-5:57143+03		076-021967-00	1-5/52111+04	.1860+041982+03	.4865+023822+02
1-5,57143+03	(0.55)R	070-02 -11907-00	1 5.5	(0.55)R	***************************************
0 •9767+03			U .15∴8+04		
1-5.0 .2362+03		153+00 - 7896-00	1-5.0 7122+03	1866+03 -7335+03	7288+021379+02
1-5.582.7+03	081+033091+013	312+011181+01	1-5.52174+04	.1893+048745+02 (0.75)R	6607+024921+02
0 •7472+03	(U.75)H		∪ •7327+03	(0.757K	
1-5.C .1520+03	./349+01 .8823+02 .6	682+016082+01	1-5:0 .1404+03	.7010+02 .1379+04	1963+034761+03
1-5.55797+03		386+012632+01	1-5159597+03	·9568+03 ·2728+03	2885+03 .9090+02
	(U.85)R			(0.85)R	
0 +3424+03	.0727+81 .7087+02 .8	373+015587+01	0 .2251+05 1-5+C7297+02	·1511+03 ·1087+04	1208+034316+03
1-5,C .6292+02 1-5,S2865+03		599+012044+01	1-5:529:1+03	•3691+03 •2724+03	2369+03 .1155+03
1-3/52865+03	11040403 14789402 -40	399701 -12044701		100/2/10	***************************************
NIC OR S	AUVANCE RATIO: MU = 0.4		NIC OR S	AUVANCE RATIO: MU = 1.0	
				(U.21)R	
0 .2641+65	(0.21)R		0 .9591+03	(U.217K	
1-5+C .9u44+02	•1417+03 •7471+02 •5	799+02 ,3152+02	1-5.0 .7670+03	.1002+01 .4186+02	.8110+03 .3398+03
1-5.54099+03	230+036532+02 .3	905+02 .1695+02	1-5:51851+04	.1941+046746+03	.2419+034022+03
	(u.35)R			(U.35)R	
0 +6999+03		2044.00	0 .1560+04 1-5:C .1001+04	3805+03 .3177+03	.6812+03 .4151+03
1-5:C .2595+03 1-5:S6691+03		824+02 .3014+02 872+02 .1668+02	1-5:53044+04	•2900+047918+03	.1309+035332+03
1-3/30091403	(0.45)R	11000102	1 3/3 (304///04	(0.45)R	12007.00
0 .9920+03	10110111		0 .1751+04		
1-5:0 .3644+03		126+02 .1582+02	1-5.C .9219+03	0043+03 -6807+03	.3076+03 .3036+03
1-5.51145+04		111+02 .9601+01	1-5,53416+84	•3097+046255+03 (0.55)R	.1282+023512+03
u •1191+04	(0.55)R		0 .1503+04	(0.55/K	
1-5.C .4268+03	.5613+02 .2314+037	193+017652+01	1-5.0 .6441+03	0035+03 .1189+04	1551+03 .3299+02
1-5.51320+04	.8421+032433+029	745+012116+01	1-5:53219+04	.2841+042706+03	3710+02 .1521+03
	(0.75)R			(0.75)R	
0826≥+03	.5313+02 .3858+03 .3	636+025908+02	0 .43∪2+U3 1-5+C2146+O3	•=218+03 •1925+04	6862+036674+03
1-5:C +2460+03 1-5:5 -+9279+03		377+022798+02	1-5.51013+04	·1032+04 ·5794+03	.1880+03 .1544+04
1-3/3 -192/7/03	(0.85)R	-12/30/02		(U.85)R	
U .39∠7+U3			0 <b>39</b> 57+01		
1-5.C .8837+02	.5703+02 .3141+03 .5	156+025218+02	1-5.C3121+03	.3914+03 .1385+04	4857+035802+03
1-5,54074+03	.∠782+03 .1625+031	7551+02 <b>2499</b> +02	1-5:51190+03	.2652+03 .5372+03	.2098+03 .1314+04
N.C OR S	AUVANCE RATIO: NU = 0.5		N+C OK S	AUVANCE RATIO: MU = 1.4	
			<u> </u>	48.0330	
	(0.21)R		0 .1362+04	(0.21)R	
0 •34.7+03 1-5:0 •1579+03	.1295+03 .1117+03 .	1133+03 .3802+02	1-5.0 .9558+03	4970+039846+03	-1723+041236+04
1-5/55507+03		3830+02 .7910+02	1-5.53541+04	·4429+041097+04	.6652+031045+04
	(0.35)R	• · · · <del>•</del> · · <del>-</del>		(0.35)R	
u •84€7+03			0 •1547+04 1=5×C •1788+03		
1-5/6 -3710+03		5211+02 .4706+02 2328+02 .6179+02	1-5:C .1788+03 1-5:55200+04	1406+046921+03 0209+041090+04	.1316+04#215+03 .1544+051317+04
1-5-51134+04	. 4089+034484+02 . 9(44.4)	COED-05 .0119+02		(0.45)R	
U +1164+04			0 .1270+04		
1-5.6 .4923+03		3424-01 .3525+02	1-5:C7439+03 1-5:S5345+04	2035+041198+03	.5646+03 .1360+02
1-5+51440+64	.1109+041798+02 . (9.55)R	6677-00 .1965+02	1-5:55345+04	• 0531+04 - 4789+03 (U-55)R	3050+028369+03
0 +1342+04	10.5514		0 .7721+03	1013514	
1-5/6 *5445+05		4120+02 .4851+01	1-5:01554+04	2076+04 .5263+03	1236+03 .1033+04
1-5:51003+04	.1191+04 .4684+02	2108+023432+02	1-5+54461+04	•5488+04 •6130+03	·4335+03 .3506+03
	(0.75)R		021/5+04	(U.75)R	
€ ./86.1+03 1-5+€ .23≥3+83	1179+03 .7703+03 .	b326+029626+02	02125+03 1-5:C1577+04	2315+03 .1073+04	3281+03 .2078+84
1-5/69213+03	11/9+03 .//03+03 .0834+03 .2592+03	2013+021049+03	1-5.56249+03	·1787+04 .2594+04	·2554+04 .3062+04
2 3.3	(U.85)H			(0.85)R	
U +3UU5+03			02701+03		
1-5+6 +3464+02		1044+039498+02 4690+017937+02	1-5:C8507+03 1-5:S .3492+03	•3276+03 •6914+03 •4445+03 •1955+04	1006+03 .1392+04 .2118+04 .2428+04
1-5/53656+03	B55+03 .2415+03	/93/402			

## TABLE 2. BLADE TWIST TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (E) MP = 0.3 FP = 0.0025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

N.C OR S	AUVANCE RATIO: MU = 0.25	N+C OH S AU	VANCE RATIO, MU = 0.7
	(0.21)R		(0.21)R
0 •1928+03		0 .5671+03	
1-5:0 4397+02	•7281+02 •1877+02 •5874+01 •8153-		544+03
1-5.52570+03	-1076+032150+026045-011612+ (0.35)R	01 1-5/5, 6705 -8	391+032694+038012+021899+03 (0.35)R
0 •5152+03	(0,331K	0 •1061+04	(57507)(
1-5.C .1181+03	.8554+02 .3166+02 .3603+01 .5258-		19+03 •3889+03 •1457+03 •1252+03
1-5,55275+03	.1976+032737+025751-001362+	01 1-5:51691+04 .1	+66+043649+039367+022003+03
0 .743d+03	(0.45)R	0 •1329+04	(0.45)R
1-5,C ,1002+03	.7863+02 .4283+02 .1191+017414-		251+03 .5883+03 .5471+02 .7498+02
1-5.56849+03	.2436+032398+021714+017046-		578+043711+038500+021032+03
	(0.55)R		(0.55)R
0 .8835+03 1-5,C .1904+03	.5664+02 .5691+02 .4063-001313+	0 .1368+04 01 1-5:C .62≥0+03 .1	266+03 +8432+033142+026348+01
1-5:57588+03	.2597+031437+023699+01 .1468-		540+043330+036949+02 .7819+02
1 3.3 1,353.03	(0.75)R		(0,75)R
0 .6463+03		0 .7109+03	
1-5.C .1199+03	.4007+02 .6949+02 .4739+018860- .1622+03 .1047+027060+01 .6043-		365+03
1-5.55005+03	.1622+03 .1047+027060+01 .6043-	00 1-3/3 -19440403 18	(0.85)R
0 .3351+05	(0100)	U .295U+Oj	
1-5:0 .5539+02	.2273+02 .4586+02 .4457+013359-		348+03 .6785+033512+021014+03
1-5:52472+03	·/853+02 ·1096+025058+01 ·3738-	00 1-5.53669+03 .3	261+037103+021777+02 .2957+03
N.C OR S	ADVANCE RATIO MU = 0.4	N.C UK 5 AU	ANCE RATIO, MU = 1.0
			THE THIRD NO TITE
	(U.21)R		(0.21)R
0 .2934+03	.1480+U3 .7334+02 .4418+02 .3046+	0	189+02 •8664+02 •2844+032669+03
1-5/6 .9427+02 1-5/5 -,4233+03	.1480+U3 .7334+02 .4418+02 .3046+ .3038+038474+022193-002170+		189+02
1-3/3 -14255705	(0.35)R	UE 1.5.5 11.55.04 11	(0.35)R
u .6376+03		0 +1461+04	
1-5.0 .2291+03	·1770+03 ·1300+03 ·3332+02 ·2822+		561+03
1-5:58507+03	1934+031182+032145+011934+	02 1=5/5 = ,2833+04 ,2	722+049348+032376+033412+03 (0.45)R
0 .9354+03	(0.43/K	0 .1603+04	1014371
1-5:C .3100+03	.1690+03 .1815+03 .1721+02 .1385+		627+03 .7531+03 .3495+02 .1017-01
1-5,51097+04	.0705+031151+036786+0183794	01 1-5.53144+04 .2	911+048889+031957+031939+03
0 .1076+04	(U.55)R	0 •1471+04	(0.55)R
1-5:0 .3453+83	.1544+03 .2462+03 .7494+0176894		986+03 •1152+049084+02 .3179+03
1-5.51214+04	.7065+038714+022179+02 .76154		517+047212+039682+02 .7708+02
	(U.75)R		(0.75)R
U .7361+03 1=5≠C .201√+03	.1158+03 .3046+03 .2036+024060+	0 .5755+03 02 1−5:C .5174+0∠ .2	258+03 .1349+041096+03 .7205+03
1-5:58115+03	-4536+03 -8394+014643+02 -3105+	02 1-5,5 +.1093+04 .9	388+032406+03 .1078+03 .5175+03
1 3/3 10213:03	(0.85)R		(0.85)R
U .3671+U3		0 •1343+03	
1-5:C .87:4+02	.7u56+u2 .2011+03 .1925+023006+ .2u75+u3 .23z3+023393+02 .2266+		239+03
1-5:54059+03		=	**
M.C ON S	AUVANCE RATIO: MU = 0.5		VANCE RATIO, MU = 1.4
*		*******	43.4430
u .37≥1+U3	(0.21)8	J .1292+04	(0.21)R
1-5/6 .1500+05	.1051+03 .1529+03 .7939+02 .1169+		724+033380+03 .8641+033392+03
1-5:55730+03	.+725+0367b7+027555+01 .2484+		015+046503+03 .3766+03 .2955+03
	(U.35)R	u .1576+u4	(0.35)R
0 .8283+03 1-5:0 .3463+03	.1949+u3 .254o+03 .4361+02 .1098+		258+04 •1640+03 •7341+031419+03
1-5.51114+04	.0409+038339+021434+02 .14934		794+045467+03 .2926+03 .1080+03
	(U.45)R		(U.45)R
0 .1090+04 1~5,C .4392+03	.1727+03 .3499+03 .4425+01 .50834	0 .1402+04 02 1-5:01032+031	566+04 •7595+03 •4665+03 •1813+03
1-5,51395+04	.1011+047005+021656+02 .4000-		.1813+03 .027+047363+02 .3804+037497+02
1 20.0	(u.55)R		(0.55)R
0 .1200+04		0 •9647+03	
1-5,C .4645+03 1-5,S1475+04	.:269+03		365+04
1-5:51475+04	(U.75)R	4-3/3 -44004704 13	202+04 .6407+03 .7497+031631+03
0 .7216+93		v +0010+U∠	
1-5.0 .2204+03	.5097+02 .6205+03 .3498+0219534		741+02 •1392+04 •1949+03 •7584+03
1-5:583:0+03	.5674-0014904 (0.85)R	02 1-5:59899+03 .1	928+04 •1478+04 •1412+04 <b></b> 1296+02 (0.85)R
0 .3265+03	(0.00)14	07020+02	(U+83/K
1-5:0 .8450+02	.5251+01 .4159+03 .4075+021456	·03 1-5,C2861+03 .2	315+03 •7824+03 •1409+03 •4531+03
1-5.5 ~.3699+03	.2624+03 .3319+02 .2805+017207		347+03 •9647+03 •9452+03 •3733+02
	NUTE- DIVIDE LISTED VALUES	BY 100,000 TO OBTAIN TRANSFER COEFFICE	ENTS

#### TABLE 2. BLADE THIST THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (F) MP = 0.3 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		FP = 0.00447(1+MU)**2	(FOR MU = 0.7:1.0:1.4)		
NIC OH 5	AUVANCE RATIO: MU = 0.25		NIC OR S	AUVANCE RATIO, MU = 0.7	
	(1) 0117			10.0110	
U .2171+03	(0.21)R		0 •5549+03	(0.21)R	
1-5,0 .5958+02	·1030+03 ·5397+02	.1962+02 .7806+01	1-5.C .2414+03	-J352+031123+03	1313+034107+02
1-5.52567+03	• DH27+02 -•8889+01	•2979+02 •2716+02	1-5.59169+03	.5098+034475+03	6135+023745+02
	(0.35)R			(0.35)R	10100102
0 +4320+03			Ù •8161+U3		
1-5+4 +1130+03	.1545+03 .8540+02	.2634+02 .1218+02	1-5.C .3362+03	·4606+039953+02	1966+033868+02
1-5:54462+03	· +981+025297+01	.4276+02 .3332+02	1-5.51307+04	·6751+03	8110+024687+02
0 •5567+03	(0.45)R		0 •9150+03	(0.45)R	
1-5.0 .1399+03	•1727+03 •1015+03	.2844+02 .1443+02	0 •9150+03 1-5•C •3575+03	-4838+034963+D2	-,2227+03 -,2281+02
1-5.55395+03	.1161+036204-00	.4619+02 .3196+02	1-5.51419+04	./027+037694+03	8195+024462+02
	(C.55)R			(0.55)R	10195.02
0 +6053+03			U •9133+03	15155711	
1-5,6 .1440+03	•1703+03 •1082+03	.2883+02 .1545+02	1-5:C .3363+03	•+514+03 •1232+02	2251+032260+01
1-5.55520+03	·1124+03 ·2777+01	.4406+02 .2760+02	1-5.51374+04	-0385+037824+03	7303+023672+02
	(0.75)R			(0.75)R	
0 •3832+03 1=5 C •7900+02	*1003+03 *7549+02	-2050+02 -1099+02	0 -5631+03		
1-5 C .7966+UZ 1-5:532UU+03	*1003+03 *7549+02 *3389+02 *2395+01	.2450+02 .1408+02	1-5+0 +1895+03 1-5+5 -+8033+03	.286+03 .7148+02	1418+03 .1978+02 3597+021456+02
1-3/3 -13200+03	(0.85)R	1406402	1-5/58055+05	•∍≥86+03 <b>4973+03</b> (0.85)R	3597+021456+02
0 .1823+03	(01037)(		9 .2726+03	(U.03)K	
1-5/6 .3525+02	·4763+02 ·3840+02	.1074+02 .5645+01	1-5.0 .8857+02	·1136+03	6910+02 .1305+02
1-5.51471+03	.2193+02 .8717-00	.1138+02 .6576+01	1-5:53816+03	-1484+032431+03	1592+025722+01
					-13/22/02
N.C OH S	AUVANCE RATIO, MU = 0.4		NIC OR S	AUVANCE RATIO: MU = 1.0	
-4	(0.21)R			(U.21)R	
U .3129+03		5680+015674+01	v •75vo+03	-3721+035402+03	2001.07
1-5:C :8134+02 1-5:5 -:4248*^3	.1816+034842+01 .1723+031346+03	1975+028708+01	1-5,c .3899+03 1-5,51439+04	•3721+03 -•5402+03 •9435+03 -•6765+03	2801+035852+02 .1025+031355+02
1-3/34240, 3	(U.35)R	17/34028/00401	1-3/311439704	(0.35)R	*10254051355402
0 •5835+03	(0.551K		40+كن10ء 0	(4,351K	
1-5.C .1495+03	.2622+03 .9934+01	1219+023870+01	1-5.6 .5052+03	09+036801+03	4297+035855+02
1-5.57369+03	·2605+031998+03	2418+028512+01	1-5.51902+04	.1226+049661+03	.1798+034295+02
	(0.45)R			(U.45)R	
0 •7282+03			0 •1006+04		
1-5:C .1812+03	·2853+03 ·2961+02	1651+027732-00	1-5:C .50U5+03	•4953+03 <b></b> 6531+03	4951+034001+02
1-5:58843+03	.3207+032220+03	- 2577+02 - 5554+01	1-5.52044+04	.1218+041050+04	·2270+036896+02
7/77.4.	(0.55)R			(U.55)R	
U ∙7677+03 1-5≠C •1∂23+U3	•2749+03 •5092+02	1879+02 .2185+01	0 •1U11+04 1-5:C •4343+03	·4397+035440+03	5059+031494+02
1-5/59059+03	.3107+032182+03	2783+021625+01	1-5/51884+04	.1061+041013+04	5059+031494+02 .2507+038886+02
1-3/39059703	(0.75)R	-12/83402 -11023401	1-3/31084704	(0.75)R	.2307+038886+02
04650+03	(01/3/1		0 .5427+03	(01/3/4	
1-5.6 .9513+02	·1567+03	1316+02 .3546+01	1-5.0 .1998+03	·2135+032247+03	3188+03 .1541+02
1-5.55224+03	·1576+031284+03	2451+02 .3030+01	1-5:59913+03	.4929+035816+03	.1759+037360+02
	(0.65)R			(0.85)R	
0 •2174+05			0 •2477+05		
1-5.C .4009+02	·/368+02 ·3339+02	6543+01 .1966+01	1-5:C .8517+02'	•9335+02 -•9038+02	1540+03 .1127+02
1-5.52400+05	6101+02	1388+02 .2140+01	1-5:54467+03	-2110+032722+03	•a773+023827+02
NIC OR S	AUVANCE RATIO: "U = 0.5		N+C UR S	AUVANCE RATIO: MU = 1.4	
			*****		
	(0.21)R			(0.21)R	
0 +3779+03			0 .9825+03		
1-5/6 -1202+03	·<358+03 ·5495+02	3099+026296+01	1-5.C .3994+03	·+u17+u37314+03	.3083+03 .2010+03
1-5:55548+03	·2787+032209+03	4691+023505+02	1-5:52169+04	·2000+045273+03	.5342+0316 <b>2</b> \+ <b>03</b>
0 +6860+0.4	(0.35)R			(0.35)R	
1-5:0 .2226+03	•3456+03 •1108+03	5214+021805+01	0 •1250+04 1=5•C •4612+03	• 5387+03 - 8260+03	1075403 0000-03
1-5/59473+03	•4427+033263+03	5609+023637+02	1-5:6 -4612+03	.5387+038260+03 .2605+046537+03	.3875+03 .2922+03 .8421+032152+03
_ 0.0 0,,,0.00	(0.45)R		1-0/3 1001744	(0.45)R	10-51402 -15135403
0 -8371+03	•		0 •1228+04	1017011	
1-5:6 .2627+03	•3707+03 •1596+03	5715+02 .1746+01	1-5:0 .3990+03	.5524+036943+03	.3718+03 .3220+03
1-5.51115+04	.4953+033707+03	5470+022432+02	1-5.528.0+04	.2595+046177+03	.9875+032179+03
	(0.55)R			(0.55)R	
'U -8595+03	4044447 0077:07	. 4006.40	0 .1046+04		
1-5:C .2567+03 1-5:51108+04	.3416+03 .2037+03	4896+02 .2374+01	1-5:0 .2849+03	.4987+034689+03	.3092+03 .3138+03
7-312 TING+04	•469+033820+03 (0.75)R	5061+025782+01	1-5:52505+04	.2264+045032+03	.1020+041937+83
0 •4867+03	(U.12)K			(0.75)R	
1-5,0 .1241+03	·1624+03	1134+022603+01	0 •4506+03	200-11 - 2120-00	.1274+03 .1810+03
1-5:55864+03	•2182+U32585+O3	3383+02 .1903+02	1-5:C :0412+02 1-5:5 -:1175+04	.2496+037128+02 .1052+041950+03	.1274+03 .1810+03 .6432+039396+02
	(0.85)R	11700102	4-073 -111/0404	.1052+04 =.1450+03	1073ETUS -1939DFVK
0 +2197+03	. ,		0 -1404+04	7310314	
1-5:0 .5052+02	+6820+02 +1021+03	8778-002618+01	1-5:6 .1365+02	.1102+039621-00	.5111+02 .8433+02
1-5:52575+03	•861+021309+03	1779+02 .1350+02	1-5/55039+03	.4488+037500+02	.3086+034090+02

## TABLE 2. BLADE TWIST THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (G) MP = 0.5 FP = 0.001 (FOR MU = 0.25.0.4.0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

		FP = 0.000447(1+MU)**2	(FOR MU = 0.7,1.0,1.4)		
N+C OK S	ADVANCE RATIO: MU = 0.25		N.C OR S	AUVANCE RATIO, MU = 0.7	
*****	40.0110		********	/:: A110	
0 .2904+03	(0.21)R		u .9931+03	(U.21)R	
1-5.C .1024+03	·4338+02 ·3163+02 .85	5+01 .5345+01	1-5,0 .7635+03	2142+03 1059+03 .3137+6	3 .2798+03
1-5,54030+03	·2141+03 -·3590+02 .13.	1241+01	1-5:51937+04	.1694+044641+03 .5682+0	
	(0.35)R			(U.35)R	
0 .9029+03 1-5:C .3241+03	3867+02 .5627+02 .24	37+01 .4313+01	0 •1acU+04 1=5:C •1185+U4	/u22+03 .9021+02 .1743+0	3 .3865+03
1-5,58474+03		00+02 .2898+01	1-5:52708+04	.2569+045012+03 .5282+0	
	(0.45)R		• • • • • • • • • • • • • • • • • • • •	(U.45)K	
0 .1338+04			0 +2245+04		
1-5.C .4744+03 1-5.51108+04		32+01 .1747+01 31+01 .3088+01	1-5/C .1233+04 1-5/53072+04	9899+03 .381p+031712+0	
1-5/51100+04	.4387+031562+02 .35 (0.55)R	.3088+01	1-5/530/2+04	.2753+043401+03 .2480+0	35105+02
0 .1654+04	1000711		0 .2290+04		
1-5.C .5663+03		51+011372+01	1-5,0 +9978+03	1071+04 .7945+031847+0	3 .3989+01
1-5.51265+04		86+01 .1519+01	1-5:52966+04	.2519+043949+022040+0	36649+01
0 •1197+04	(0.75)R		0 .87∠4+03	(0.75)R	
1-5.0 .3297+03	1764+03 .8537+Q2 .36	81+024685+01	0 .87∠4+03 1-5:C2922+03	2140+03 .1489+041320+0	39778+03
1-5.58466+03		42+027855+01	1-5.51078+04	.6921+03 .6680+031109+0	
	(0.85)R			(0.85)R	
0 +5804+03			U .1436+03		
1-5.C .1151+03		06+023282+01	1-5.05449+03	.1589+03 .1142+041400+0	
1-5.54056+03	•4337+02 •1331+03 <b></b> 14	19+028580+01	1-5,51788+03	1478+02 .5985+039231+0	1113+03
N.C OR S	AUVANCE RATIO: MU = 0.4		NIC OR S	ADVANCE RATIO, MU = 1.0	
	(0.21)R			(0.21)R	
0 .4859+03 1-5:C .2348+03	-700.00 OCH-400 SE	68+02 .6193+02	0 .1554+04 1-5:C .1395+04		
1-5+C .2348+03 1-5+S6731+03		15+03 .1721+02	1-5/5 -:3099+04	4377+035601+03 .1259+0 .3450+041380+04 .9232+0	
1-3/3 -10/31+03	(U.35)R	15705 .1721702	1-3/3 -13099704	(0.35)R	.5 -19639703
0 .1254+04			0 .2111+04		
1-5.C .5846+03		79+01 .5341+02	1-5,C .1315+04	1027+042618+03 .9248+0	
1-5.51348+04	.1013+041446+03 .99 (0.45)R	57+02 .3045+02	1-5,54632+04	.4582+041389+04 .6141+0	31078+04
0 •1714+04	(U-45)R		U +2008+04	(0.45)R	
1-5.C .7905+03	3261+03 .2495+0324	91+02 .2289+02	1-5,C .7496+03	1466+04 .2052+03 .2771+0	.3931+03
1-5.51748+04	·1187+048726+02 .44	10+02 .2799+02	1-5.54808+04	4410+049037+03 .1648+0	
	(0.55)R			(0.55)R	
0 .2009+04			D .1p75+04		
1-5.C .8843+03		99+022056+02 77+02 .7792+01	1-5-C6173+02	1487+04 .7375+034164+0	
1-5:51946+04	•1213+04 •4711+02 -•40 (u•75)R	77+02 .7792+01	1-5:54331+ 4	.3494+041526+031881+(	.2671+03
0 .1249+04	10113711		U .1942+03		
1-5,C .3791+03	3468+03 .4039+03 .18	99+039493+02	1-5:01324+04	-5150+02 -1204+048908+6	
1-5.51290+04	•5403+03 •4735+0320	81+038777+02	1-5/51051+04	•3941+6 •3941+6	2412+04
	(0.85)R		u =.1751+03	(0.85)R	
0 •5168+03 1-5:C •5408+02	1441+03 .2973+03 .21	56+037818+02	01751+03 1-5≠C1030+04	.4867+03 .8022+035401+0	033932+03
1-5,5 -,6212+03		77+039128+02	1-5/5 -5513+02	4225+03 .9452+03 .1657+0	
		,,,,,,		_	
N.C OH S	AUVANCE RATIO, MU = 0.5		N.C OK S	AUVANCE RATIO: MU = 1.4	
	(U.21)R		<del>_</del>	(0.2118	
0 .6333+03			0 •1035+04		
1-5.C .3795+03		53+03 .1033+03	1-5.6 .7302+03	2499+022344+04 .3573+	
1-5.59261+03	•u943+u31422+03 .20	86+03 .8877+02	1-5:55915+04	·/096+047738+03 ·9829+	031297+04
	(U.35)R		U .115a+0+	(0.35)R	
U •1474+U4 1−5•C •78∪8+03		98+02 .1095+03	1-5.C1739+04	1840+042117+04 .2379+	042514+04
1-5/51743+04		34+03 .9505+02	1-5.57774+04	·9244+041119+03 .9400+1	
2 0.0	(0.45)R	.,,,,,,,,		(U.45)R	
U •1966+04			0 •3799+03		
1-5.0 .9805+03		79+02 .6695+02 66+02 .5599+02	1-5:C3898+04 1-5:573:0+04	3107+041456+04 .7703+ .6910+04 .1016+045835+	
1-5.52141+04	•1697+04 -•4997+02 •64 (0•55)R	66+02 .5599+02	1-5/3/330404	(0.55)R	75 1030404
0 .2207+04	10130711		03041+03	10.30	
1-5,0 .1001+04		93+021497+02	1-5:05352+04	3591+049148+032987+	
1-5,52207+04	•1661+04 •1359+0387	51+022239+02	1-5:55500+04	.7288+04	041751+03
	(0.75)R			(0.75)R	
U .1108+04	- multi-03 05-03-03	06+03 - 2327+03	04025+03	- 1420400 - 0010403 4775	03 (030:00
1-5,C .1841+03 1-5,S1183+04		86+032327+03 94+032405+03	1-5:C3652+04 1-5:S2260+02	1324+048814+03 .6775+ .2061+04 .4276+04 .5465+	
1.0751100704	(0.85)R	-12403703	1-3/3 1220402	(0.85)R	)401070 <del>4</del>
0 .3114+03			01233+03		
1-5.61719+03		15+032160+03	1-5:01637+04	786+037077+03 .9599+	
1-5.54094+03	.9201-00 .6065+0327	59+032235+03	1-5/5 .9377+03	·+274+03 ·2911+04 ·4451+	04 .3410+04

## TABLE 2. BLADE TWIST TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

(H) MP = 0.5 FP = 0.0025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

				0.00115111101115						
NIC UK S	AUVANCE R	ATIO, MU = 0.25			NIC OK S		AUVANCE R	ATIO: MU = 0.7		
		(U.21)R						(U.21)R		
u .339	/3+v3	(0.21/K			Ú	.1011+04				
1-5:0 .110		.3232+02	.1178+02	.5334+01		· 0921+03	1831+03	.8795+02	.3429+03	.1138+03
1-5.5416	3+03 .2041+03	3337+02	.4072+01	2551+01	1-5.5	1593+04	•1597+U4	4030+03	.7286+02	3853+03
		(U.35)R						(u.35)R		
	51+U.S				U	·1011+04				.1590+03
	+0+031067+01	•5798+02	.8109+01	.4698+01 8256-00	1-5.0	.1000+04	5704+03 .2438+04	.3491+03 4615+03	.2307+03 .2827+02	3899+03
1-5.583	.u+03 .3533+03	3452+02 (0.45)R	.3084+01	8256-00	1-5.5	2017+04		(0.45)R	+2021702	3679703
0 .12	od+04	(U.437K			Ú	.2146+04		1014371		
	90+0358h2+02	.7603+02	.4456+01	.2174+01	1-5.0	·11:5+U4	/777+03	•6531+03	.4518+02	.1285+03
1-5.510	72+04 .4143+03	1736+02	4047-00	.9826-00	1-5:5	2961+04	·2023+U4	3632+03	6121+02	1972+03
		(0.55)R						(U.55)R		
	9+04			4005.04	Ü	.21_2+04	1051.03	.1020+04	1321+03	.3089+02
1-5,6 .46 1-5,511	10+031071+03 72+04 .4134+03	.9274+02 .1454+02	.4444+01 6019+01	1285+01 .2092+01	1-5.6	.9345+03 2863+04	/851+03 .4368+04	1740+03	1849+03	.1395+03
1-3/311	72+04 14134+03	(0.75)R	0019+01	.2072701	1-3/3	-12003104		(0.75)R	.1047.00	
0 .16	51+04				U	.9645+05				
1-5.6 .26	77+03 9916+02		.1488+02	5921+01	1-5.0	.5844+02	1934+03	.1302+04	2072+03	2055+03
1-5.574	±3+03 • ±005+03		1506+02	.5081-00	1-5,5	1135+04	• u291+03	•1955+03	3299+03	.7036+03
		(U.85)R				21.20.0.		(U.85)R		
	∪1+U5 51+03 <b></b> 5173+02	•5644+02	•1257+02	4263+01	0	.3534+03 127d+03	.1762+02	.8312+03	1135+03	1683+03
	26+03 -7847+02		1093+02	3471-00		3700+03	-4252+03	.1736+03	2214+03	.5172+03
1-3/3 -130	20703 1/04/1102	*5736.02	-11073702	-13411-00	1-373	-13700.03	***************************************	11.00.00	V222	
NIC OR S	AUVANCE I	RATIO: MU = 0.4			N+C OR	S	AUVANCE I	RAT10+ MU = 1.0		
						-				
		(0.21)R						(U.21)R		
	94+03		.6724+02	.6543+02		1520+04				
	55+03 .8242+02 65+03 .5624+03		.8724+02 .4119+02	3102+02	1-5,C 1-5,5	.1157+04 2958+04	5128+03 -J179+04	3404+03 1000+04	.5867+03 .1145+03	6984+03 6674+03
1-5/369	13624+03	(0.35)R	* 411,7702	3102+02	1-3/3	12 930 104	*3179+04	(u.35)R	1143403	-,6614703
U .12	US+U4	(0105			U	.2129+04		10100711		
	40+054332+02		.5826+02	.6051+02	1-5,C	.1199+04	1319+04	+1950+02	.3265+03	5325+03
1-5/513	<9+04 •9653+03	1330+03	·3582+02	1883+02	1-5:5	4409+04	• 4413+04	1005+04	5423+01	6720+03
		(0.45)R						(U.45)R		
	17+04 85+031655+03	-2878+03	.2177+02	.2812+02	1-5.C	•2145+04 •8257+05	1084+04	•4967+03	.1164+02	/4472+02
	74+04 •1129+04		.7722+01	.8051-00	1-5,5	4651+04	44396+04	6477+03	5484+02	3658+03
1-5/5 -110	11129704	(0.55)R	17722701	.8031-00	1-3/3	-14031104	14390704	(0.55)R	-,3404402	3038743
U •18	10+04	10135711			0	.1790+04		10100711		
	24+032547+03	.3665+03	.2043+01	2162+02	1-5:0	.2442+03	1586+04	•9929+03	1968+03	.6311+03
1-5:518	12+04 •1126+04		3855+02	.2085+02	1-5,5	4049+04	. 3588+04	1169+03	.1812+02	.1388+03
		(0.75)R						(0.75)R		
U - 11 1-5/C - 39	.44+04 .98+03 <b></b> 1899+03	.3915+03	.4016+02	9959+02	0	.4969+03 6223+03	2740+03	.1222+04	3154.00	
1-5/511	.5549+03 .52+04 .5549+03	.2424+03	1158+03	.3200+02	1-5/6	1222+04	•0100+03		7156+02 .3337+03	.1402+04 .8892+03
1-3/3111	32+04 . 13549+03	(0.85)R	-11156+05	.3200+02	1-373	-11222404	*8100+03	(0.85)R	*3337+03	*************
U .55	197+03				0	.97u9+UZ		10100711		
1-5:0 .12	93+030716+02	•2467+03	.4139+02	7381+02		4742+03	•9719+u2	.7284+03	.2178+02	.9273+03
1-5:556	o01+03 •∠217+03	1932+03	8524+02	.1912+02	1-5,5	2020+03	•5209+02	.4643+03	.2664+03	.6313+03
HIFC UK S	ALIVANCE	RATIO: MU = 0.5			N+C OR	c	ALMANCE	RATIO, MU = 1.4		
+	NO TRIVE	MA1201 NO - 013					ADVANCE	KA1107 MU = 1.4		
		(U.21)R						(0.21)R		
	38+03				U	.1042+04				
	3709+01 م		.1675+03	.1682+03		.2074+05	1045+04	1400+04	.2209+04	1510+04
1-5:5 -,9:	S55+03 +367 <b>3</b> +03	1150+03 (0.35)R	.7743+02	1249+02	1-5,5	5409+04	•0781+04		+1151+04	.6031+03
U .14	44+04	(U-35)K			0	15.40.40		(0.35)R		
	!4U+U3 =+1869+U3	3248+03	•9228+g2	.1648+03		•1534+04 -•1463+04	4746+04	9182+03	·1878+04	9975+03
	11+04 .1444+04		.5627+02	9701+01	1=5.5	7529+04	9249+04		•1070+U4 •1052+04	.1175+03
		(0.45)R				********	.,,,,,,,,	(U.45)R	12032101	11113403
	SL 7+04				0	.9828+03				
	35/+03 3563+03	4744+03	.7506+01	.8296+02		- 2861+04	3556+04		.1326+04	.1130+03
1-5.520	)71+04 • 1646+64	4207+02 (0.55)R	.2922+01	1989+01	1-5:5	7049+04	+ 4225+04		.1214+04	3664+03
0 .20	061+04	,0.33//			o	.3340+03		(0.55)R		
	701+03n88+03	•6533+03	3800+02	5422+02		3620+04	3421+04	•4152+03	.1073+04	.1466+04
	129+04 -1585+04	•87 <del>69+</del> 02	7008+02	.8556+01		-,5360+04	./714+04		.1929+04	6516+03
		(u.75)R						(0.75)R		
	JU 5+U4				Ü	-,3504+03				
1-5.0 .2: 1-5.51.	369+031078+03 116+04 -0616+03		.5482+02 1647+03	2919+03 .2231+02	1-5.0	2269+04	4353+03		.1292+04	.2603+04
A-J/3 -+1.	10016403	(U.85)H	104/+03	.2231+02	1-5+5	-,5930+03	•2516+04		.3146+04	-,3520+03
0 .44	+90+03	1010011			n	- 2000-0		(U.85)R		
1-5/6 .4	JJ2+02 =+2173+0;	5 -5194+03	.7164+02	2208+03		2485+05 1014+04	0862+02	•2580+03	.8840 03	.1613+04
1-5:54:	-2165+UJ -2165+UJ	3 •2480+03	1155+03	.1573+02	1-5/5		• /400+U3		.2071+04	1086+03

## TABLE 2. BLAUE TWIST THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (1) MP = 0.5 PP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

	11 - 01004411211107772	11 01 140 - 017711071147		
N+C OR S	AUVANCE RATIO, MU = 0.25	N.C OR S	AUVANCE RATIO, MU = 0.7	
	(0.21)R		(0.21)R	
u •3905+03		0 •9610+03		
1-5.C .9222+02	.d354+02 .1371+02 .6122-007838-00	1-5.6 .5199+03	-2253+037836-001762+031115+	
1=5.54165+03	•1393+03 -•4591+02 -•5750+011472+01 (0•35)R	1-5.51491+04	-1114+046200+039711+025864+ (0.35)R	02
0 •7689+03		0 +1504+04		
1-5,0 .1791+03	.9970+02 .3010+024907-002912-00	1-5.0 .6951+03	.2962+03 .1361+032820+031029+	
1-5:57220+03	.∠261+036238+027449+019268-00 (0.45)R	1-5:52000+04	.1468+049063+031415+036811+ (0.45)R	02
0 •9845+03	(U.45)K	0 .1510+04	10.451K	
1-5,C .2222+03	.9233+02 .4320+021294+01 .3198-00	1-5:C .71uo+03	·2975+03 ·2805+033361+035754+	nο
1-5.58630+03	.2572+036298+028548+012356-00	1-5.52191+04	·1478+041006+041567+035904+	
	(0.55)R		(0.55)R	
0 •1057+04	•	0 .1405+04		
1-5.C .2268+03	·/579+02 ·5320+021501+01 .8134-00	1-5,0 .6423+03	-2632+03 4086+033563+03 .2714-	
1-5:58756+03	·2471+035442+029945+01 .2186-00	1-5/52065+04	·1312+049972+031549+034174+	02
	(0.75)R		(0.75)K	
0 .6555+03 1=5,C .1197+03	.3396+02 .4429+023368-00 .7921-00	0 .8844+03	•1274+03 •3848+03 <b>2411</b> +03 <b>.5976</b> +	
1-5,54938+03	.5396+02 .4429+023368-00 .7921-00 .1217+032227+029436+01 .8634-01	1-5,C .3209+03 1-5,51147+04	.1274+03 .3848+032411+03 .5976+ .0401+036073+039392+027983+	02
1-3/3 -14930.03	(0.85)R	1-3/3 -1114/+04	(U.85)R	01
U .3U87+U3	(0007)(	U .42_9+05	1010371(	
1-5.C .5123+02	.1498+02 .2359+02 .4943-01 .4017-00	1-5.6 .1409+03	.592+02 .2080+031202+03 .3871+	02
1-5/52237+03	•>109+028587+015400+014032-01	1-5/55344+03	.2821+032927+034519+029494-	.00
N+C OH S	ADVANCE RATIO: MU = 0.4	N+C UK S	AUVANCE RATIO: MU = 1.0	
	(0.21)R		40.0410	
J .5441+03	(U.21)R	U .1240+04	(0.21)R	
1-5.6 .1930+03	•1998+03 •5055+02 •9757-00 <b></b> 1216+02	1-5.6 .0709+03	.5720+023738+032320+039967+	02
1-5/56869+03	797+031840+033572+022065+02	1-5.52411+04	.<095+049714+03 .1368+034695+	
	(0.35)R		(0.35)R	
0 •10∪≥+04		0 .1653+04		
1~5.C .3493+03	·c538+03 ·1131+031108+027745+01	1-5.C .8114+05	.4536+U23291+O33752+O32987+	
1-5:51162+04	.0092+032616+034499+021836+02	1-5,53199+04	·2662+041308+04 .2385+031006+	03
0 +1257+04	(0.45)R	0 .1674+04	(0.45)R	
1-5,6 ,4173+03	.2506+03 .1656+032045+021207+01	0 .1674+04 1-5:C .73c7+03	·1501+021646+034492+03 .7370+	0.2
1-5:513:0+04	.0872+032752+035050+021025+02	1-5:53247+04	.2582+041347+04 .3000+031411+	
10.0	(U.55)R	1 3/3 132404	(0.55)R	••
0 •12bd+04	***************************************	0 .1493+04		
1-5,0 .4110+03	.2220+03 .2085+032506+02 .4296+01	1-5:6 .5576+83	1986+02 .3470+D24750+O3 .1775+	
1-5.51397+04	•o544+032500+035803+028530-00	1-5,529,2+04	·2179+041226+04 .3303+031679+	-03
	(0.75)R		(0.75)R	
U .7561+03 1−5≀C .2015+03	·1155+03 ·1804+031519+02 .5468+01	U .73∠0:U3 1=5:C .1685+U3	+620+02 .2160+033146+03 .2096+	
1-5,57916+03	•3150+03 •1175+03 •.5510+02 .7942+01	1-5/51431+04	4620+02 .2160+033146+03 .2096+ .9340+036276+03 .2309+031285+	
1-3/31/910+03	(U.85)R	1-3/3 -11431+04	(0.85)R	0.5
U •3479+03	10700711	u .3219+Ú3	1000211	
1-5:6 .0252+02	•5370+U2 •9737+026616+01 .2715+01	1-5:6 .5322+02	2751+02 .1343+031543+03 .1163+	
1-5:53600+03	.1304+034946+023164+02 .5090+01	1-5:56303+03	-J836+032809+03 .1151+036560+	02
NIC OR S	AUVANCE RATIO: MU = 0.5	ILIC UK S	AUVANCE RATIO, MU = 1.4	
	(U, 21) R		(U.21)R	
0 •0019+03		0 .1315+04		
1-5.6 .20/7+03	·2312+03 ·1330+032291+022084+02	1-5.6 .0935+02	3819+035939+02 .1346+04 .3173#	
1-5.58897+03	·ouu1+0328d1+037815+026233+02	1-5/53771+04	·4879+041460+03 .4239+0375484	103
0 .1152+04	(U.35)R	D .157.3+04	(U.35)R	
1-5:0 .4940+05	-2985+03 -2647+036116+029530+01	1-5:0 -:1350+03	+710+03 .3965+03 .1943+04 .6468+	
1-5.51460+04	+9577+034092+039569+026190+02	1-5/54727+04	·0306+04 .7071+02 .7187+0310694	
	(U.45)R		(0.45)R	
U .1423+U4		0 .1424+04	•••	
1-5.0 .5693+03	•∠874+U3 •37Ub+O37883+O2 .1154+O1	1-5.03713+03	+424+03 .8759+03 .2128+04 .8816+	
1-5:51712+04	.1033+044445+039852+023870+02 (0.55)R	1-5:54523+04	+0235+04 .3352+03 .8852+0311524	104
0 •1437+04	(U.33)K	U .1090+04	(0.55)R	
1-5.6 5394+03	.2341+03 .4582+037451+02 .5207+01	1-5:571/+03	575+03 .127o+04 .2062+04 .10224	·υπ
1-5,51671+04	.9547+034334+039971+025398+01	1-5/53747+64	• 3568+04 • 5743+03 • 9524+03 <b>- 1022</b> •	
	(U.75)R	2 3.2 1077.734	(0.75)R	**
0 •7779+03		0 .34_6+03		
1-5.6 .2344+03	./966+02 .3965+031964+024246+01	1-5:05311+03	±356+03 .1141+04 .1177+04 .7451+	03
1-5:58535+03	·4178+032614+037800+02 .3557+02	1-5:5 +.1524+04	.2449+U4 .5687+03 .0355+036090+	03
0 .34<.3+03	(U.85)K		(U.85)R	
0 .34∠3+03 1-5⋅C .87o1+02	.2055+02 .2142+032025+014974+01	0 .11.9+03		
1-5/53650+03	.1616+031268+034283+02 .2440+02	1-5:62800+03 1-5:56096+03	0172+02 .5974+03 .5466+03 .3724+ .1034+04 .3054+03 .3100+032799+	
- 3/3 - 13030/03	**************************************	1-3/300/20103	•1034+04 •3054+03 •3100+03 <b>2799</b> +	.03

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	·	P = 0.000447(1+MU)**2	(FOR MU = 0.7,1.0,1.4)		
N.C UR S	AUVANCE RATIO, MU = 0.25		ItaC UK S	AUVANCE RATIO, MU = 0.7	
0 .4599+02	(0.21)R		01376+03	(0.21)R	
1-5.C2216+02	1027+026880+0186	7+014949+01		3505+031449+03	7099+02 .1815+02
1-5:5 .1731+03		4+021475+02			1081+031617+03
	(0,35)R			(0.35)R	***************************************
0 .8449+02			02022+03		
1-5.05540+02	5.8119+017993+01102			5549+032111+03	.3177+01 .2047+02
1-5+5 .27a4+03	2073+02 .2952+01 .215 (U.45)R	3+021559+02	1-5:5 .55mH+93	2800+033436+03 (0.45)R	1016+031768+03
0 .642+02	(0,45)K		02414+03	(0.45)K	
1-5.C77n3+02	.4209+015120+0171	5+018856-00		5559+032387+03	.5703+02 .1902+02
1-5+5 .3132+03	~.2517+026013+01 .128	0+028769+01	1-5.5 .6642+93	3619+034343+03	5596+021052+03
	(0.55)R			(0.55)R	
02975+02 1-5:C9322+02	-2937+02 .1510+01 ,225	3153+01	02943+03 1-5.62914+03	3893+032619+03	.5794+02 .1838+02
1-5/5 .3095+03	3052+021615+0221	30+01 <b>.4820</b> +01		4319+035454+03	.1198+02 .4222+02
2 3/3 1/3/5/103	(0.75)R	***************************************	1 0.0	(0.75)R	***************************************
04359+03			0 3d3a+15		
1-5.06841+02		9+02 .9727+01			1769+03 .2263+02
1-5,5 .1532+03	3687+022477+02363 (0.85)R	55+02 .4247+02	1-5.5 .4953+03	4173+036913+03 (0.85)R	.1316+03 .4256+03
04311+03	(0.65/K		02851+03	10.0014	
1-5.03475+02	.9201+02 .2115+02 .22	8+02 .7816+01	1-5:01070+03	-4752+031779+03	2046+03 .1789+02
1-5.5 .3631+02		36+02 .3927+02		2684+035024+03	.1081+03 .3758+03
M+C OK S	ADVANCE RATIO: MU = 0.4		HIC OR S	ADVANCE RATIO: MU = 1.0	
	(0.21)R			(0.21)R	
0 .2320+112			03109+03		
1-5.6 3820+02		59+02 <b>627</b> 5-00		5060+034247+03	3265+032244+03
1-5/5 .2462+03	3779+02 .8820+01 .176 (0.35)R	59+025612+01	1-5/5 .3930+03		2338+038910+03
0 .6333+02	(0.35)8		05700+03	(0.35)R	
1-5.69634+02	7919+021547+02 .19	75+02 .1774+01		9438+036435+03	2723+03 '2410+03
1-5.5 .4313+03	6310+022550+02 .19	75+027582+01		4544+031052+04	2602+037143+03
	(0.45)R			(0.45)R	
0 .5011+02			07105+03 1-5,C3963+03		
1-5:01374+03 1-5:5 .5105+03	5074+021180+02 .77 7810+026271+02 .11	91+01 .3791+01 78+025907+01			9351+021179+03 1791+032417+03
1-3/3 13(034	(0.55)R	10702 -45701701	1-373 149/12/03	(0.55)R	11917032417403
03711+02			07846+03		
1-5.016.35+03		48+02 .5168+01		9o36+0389o3+03	.1599+03 .1343+03
1-5.5 .5285+03		53+016247-00	1-5+5 .4383+03		1921+02 .3702+03
04450+03	(0.75)R		05658+03	(0.75)R	
1-5,C -,1371+03	.1858+03 .3319+0246	57+02 .2351+01	1-5.62367+03	.5164+029582+03	.5431+03 .7155+03
1-5/5 .2540+93	1054+031419+0357	46+02 .1898+02		6382+038098+03	.3400+03 .1148+04
	(0.95)R			(0.85)R	
04394+43			03020+03		
1-5+67645+12 1-5+5 .8077+32		61+02 .8753-01 97+02 .1894+02	1-5.09122+02 1-5.5 .1104+03	-2928+036389+03	.4080+03 .5844+03
1-373 .0047432		9/71/2 .1094402		3953+034509+03	.2896+03 .8295+03
H,C UK S	ADVANCE RATIO, MU = 0.5		N.C OR S	ADVANCE RATIO: MU = 1.4	
*******	(0.21)R			(0.21)R	
02612+02			0 +.5058+03	10122111	
1-5.64247+02		75+02 .9200+01	1=5+C40×1+93		1279+031195+04
1-5.5 .2673+03		31+02 .6770+01	1-5+5 -5915+03		3522+024968+03
	(0.35)R			(0.35)R	
0 .1102+00 1-5.C1195+03	2040+035320+02 .77	06+02 .1440+02	0 -,93a3+03 1-5:C -,8076+03	7239+031534+04	7357+021082+04
1-5/5 .5145+03		09+01 .1812-00	1-5/5 -6274+03		1055+032952+03
2 070 102 3740	(0.45)R		2 0.0	(0.45)R	11755750
09102+01			01175+04		
1-5.C1741+03	1ma2+035888+02 .46	63+02 .1308+02 77+014391+01	1-5.09931+03	8408+031832+04	.7995+024102+03
1-5,5 .6392+03	1707+031213+0312 (0.55)R	77+014391+01	1-5+5 .4994+03	4076+031285+04 (0.55)R	1271+037342+02
08346+02	1013371		01279+04	(0,557K	
1-5.62162+03		70+02 .5146+01	1-5:61014+04	7628+032180+04	.3267+03 .6519+03
4-5/5 .6896+03	2001+031899+03 .68	53+013715+01	1-5/5 .3259+03	4653+031213+04	9178+02 .2205+02
	(0.75)R			(0.75)R	
04456+03	26,464.63 - 30064.02 - 21	15+03 -,3032+02	0 ~.4705+03	- 5000100 - 31.8155	7150.43 3365.55
1-5.C1744+03 1-5.S .3641+03		155+01 -,3032+02 155+01 -2405+02	1-5,64335+03 1-5,5 -6940+02	5599+022364+04 4415+034679+03	.7150+03 .2348+04 .1007+032918+03
2 373	(U.85)R		2 373 1.7711702	(0.85)R	1100.100 -12718403
04312+93			04457+03		
1-5.095.12+02		84+033199+02	1-5+01395+03	-1228+031526+04	.5119+03 .1727+04
1-5/5 .12:84-93	1315+031703+03 .36	55-00 .2781+02	1-5+5 .2294+02	2720+031568+03	.1072+032967+03

## TABLE 3. INFLOW RATIO TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (8) MP = 0.1 FP = 0.0025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

N.C OR S	ADVANCE RATIO, MU = 0.25		N,C OR S	ADVANCE RATIO, MU = 0.7	
	(0,21)R			(0.21)R	
0 .4920	.02		01177+03		
1-5.01952- 1-5.5 .1673-		.5612+01 .2931+02 2662+01 .1379+02	1-5,58431+02 1-5,5 .3020+03	3522+032924+03 1131+033297+03 (0.35)R	1265+035266+03 9174+02 .1409+03
0 .6886	-02		01901+03		
1-5,C4950- 1-5,S .2647-		.4804+01 .2572+02 8666-00 .1318+02	1-5,C1767+03 1-5,S .5202+03	5291+034193+03 2138+035163+03 (0.45)R	+.8082+024570+03 +.9157+02 .1001+03
0 .3257	-02		02372+03	•	
1-5.C700b	02 .3696+01 .3154+01	.1991+01 .1018+02	1-5,C2312+03	5174+034704+03	÷.2231+021558+03
1-5,5 .2948	(0.55)R	.2175+01 .6820+01	1-5,5 .6261+03 02005+03	2798+036324+03 (0.55)R	-,7509+02 ,6521+01
1-5.08290		1824+011259+02		3536+034989+03	.1499+02 .2894+03
1-5.5 .2916	-032672+021141+02 (0.75)R	.6049+013144+01		3272+037392+03 (0.75)R	÷.6325+021127+03
029h7 1-5,C6149		6825+014603+02	02630+03 1-5,61661+03	-176n+034057+03	1789+02 .9054+03
1-5,5 .1200	-032193+023854+01 (0.85)R	.1028+021924+02	1-5+5 .4274+03	2742+037036+03 (0.85)R	÷.6117+022406+03
02324		**************************************	D1612+03	0000007 - 0700007	- 0757:00 (747:07
1-5,03211 1-5,5 .46d9		4869+013350+02 .6952+011443+02		.2048+032344+03 1546+034240+03	2757+02 .6367+03 4171+021605+03
N.C OR S	ADVANCE RATIO, MU = 0.4		N.C UK S	AUVANCE RATIO, MU = 1.0	
	(0.21)R		)2941+03	(0.21)R	
0 .2:199 1-5:C3740	+026672+021340+02	.1501+02 .4793+02		5126+031017+04	3131+033137+03
1-5,5 .2428	3406+021409+02 (0.35)R	7784+01 .6829+01	1-5/5 .3624+03	1943+037117+03 (0.35)R	1291+03 .4669+03
0 .5002 1-5.C6837	+02 +027085+021805+02	.1200+02 .4331+02	053a5+03 1-5+62657+03	8998+031495+04	2748+032802+03
1-5,5 .4152		6924+01 .4828+01	1-5.5 .4572+03	3723+U31078+04 (0.45)R	1577+03 .4398+03
0 .1898		.1106+01 .1787+02	D6623+03	1012+041731+04	1623+039647+02
1-5,01225 1-5,5 .4842		.1106+01 .1787+02 4842+01 .3650-00	1-5.5 .4669+03	4900+031205+04 (0.55)R	1698+039647+02 1698+03 .1136+03
07413	+02		06954+03		
1-5,0143a 1-5,5 .4315		1586+022118+02 3462+015321+01		8945+031890+04 5690+031196+04 (U.75)R	-,4440+02 .1822+03 -,1922+03 -,4444+03
03052	+93		06193+03		
1-5.61077		4231+028208+02 4505+011179+02		1834+031563+04	.5143+02 .5493+03
1-5,5 .2341	+036091+021025+03 (0.85)R	-,4505+01 -,1179+02	1-5.5 .21.58+03	455p+037204+03 (0.85)R	2027+031261+04
02339			01976+03		
1-5:05630 1-5:5 .9228		3068+026044+02 3602+018074+01		.1352+028843+03 2477+033519+03	.3130+02 .3751+03 1260+038705+03
N.C UK S	ADVANCE RATIO, MU = 0.5		NOC OR S	ADVANCE RATIO: MU = 1.4	
	(0,211R			(0.21)R	
a133o	+02		04092+03		
1-5,C49aa		.2230+022446+02		4383+031709+04	.4925+02 .2458+03
1-5.3 .2727	+036274+023598+02 (0.35)R	1979+022193+02	1-5/5 .4946403	2ou6+031258+03 (0.35)R	.1160+03 .5626+02
04437	HU1		0იმნი+მპ		
1-5,01191		.2535+021893+02		6254+032543+04	.1026+03 .2259+03
1-5,5 .5907 03120	(0.45)R	1769+022517+02	1-5/5 .5341+03 01090+04	3735+03261 <b>7+03</b> (0.45)R	.8821+02 .4992+02
1-5.01029	+031653+037358+02	.8844+013721+01	1-5.08333+03	9707+032943+04	.1375+03 .6831+02
1-5.5 .6072	(0.55)R	1095+021481+02		4135+032267+03 (0.55)R	.9696+02 -,7549+02
01155 1-5.01556		2743+02 .1709+02	01145+00 1-5;7333+03	9047+033152+04	.1570+031809+03
1-5:5 .6247	+131556+032227+03 (0.75)R	3898+01 .7425+01	1-5.5 .3177+03	4189+032398+02 (0.75)R	.1750+033166+03
0 - 3108		- 1006A03	07024+03	- 0.004.03 - 030.0400	1136403 - 6065.07
1-5:01346 1-5:5 .3279		-,1045+03 .4424+02 .1291+01 .5461+02	1-5/5 .1112+03	2345+032348+04 2345+03 .4485+03 (0.85)R	.1135+034945+03 .3310+036478+03
02369			03356+03		
1-5.66411 1-5.5 .136d		8019+02 .3117+02 .4371=00 .4287+02		7202+021202+04 1471+03 .3394+03	.5793+023279+03 .2231+034274+03

## TABLE 3. INFLOW RATIO TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### (C) MP = 0.1 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		FP = 0.00	447(I+MU)**2	(FUR MU = 0.7	11.0/1.4)				
N.C OR S	ADVANCE RATIO, MU = 0.25			N.C OR S	5	ADVANCE R	ATIO, MU = 0.7		
					-				
	(0.21)R			0	9825+0.		(0.21)R		
0 .3466+02 1-5+C2051+02	8012+011678+02	.2103+01	.3688+01	1-5-0	8017+02	3137+03	6449+03	9148+02	.8022+01
1-5:5 .1439+03	7351+011109+02	.2312-00	9362-00		.2740+03	5973+02		.6005+02	.5969+02
1-313 11437103	(0.35)R			1 0.0			(0.35)R		13707102
0 .3045+02					1583+03				
1-5.C3901+02	6728+012479+02	.1324+01	.3593+01		1176+03	3736+03	9458+03	<b>*.1315+03</b>	.4015+01
1-5,5 .2121+03	1033+022068+02	.1891-00	.5295-00	1-5.5	.4017+03	8690+02		•9909+02	.4006+02
	(0.45)R			0	4000-03		(0.45)R		
04077+01 1-5+C4940+02	1367+012802+02	6065-00	.1559+01		1895+03 1313+03	3347+03	1053+04	1439+03	2813+01
1-5.5 .2261+03	1141+022583+02	.7484-01	.6923-01		.4471+03	9610+02	.4779+03	.1207+03	1383-01
1 373	(0.55)R	•••••			•		(0.55)R	**********	-11000-01
06131+02				0	2018+03				
1-5.C5292+02	.6254+012860+02	-,3144+01	1381+01		1306+03	2508+03	1047+04	1405+03	·.1013+02
1-5,5 .2046+03	1161+022726+02	-,5823-01	1911-00	1-5.5	.4442+03	9483+02	.4626+03	.1304+03	-,4496+02
	(0.75)R			n	. 1370.07		(0.75)R		
01267+03 1-5,C3325+02	.1406+021887+02	5285+01	4654+01		1374+03 8013+02	6854+02	6404+03	8338+02	1381+02
1-5/5 .8904+02	7957+011657+02	1697 <del>-</del> 00	.6105-02	1-5.5	.2716+03	5734+02	.2703+03	.9061+02	7414+02
1-3/3 .8904402	(0.85)R	1077-00			*2.10.00	10,01.02	(0.85)R	.,,,,,,	-01424402
08064+02				0	6862+02				
1-5.C1582+02	.8861+019463+01	3228+01	3004+01		3871+02	1904+02	3092+03	<b>3982+02</b>	7926+01
1-5.5 .3495+02	4n83+017763+01	1042+00	.7991-01	1-5,5	.1311+03	2756+02	.1284+03	.4553+02	4351+02
N.C OR S	ADVANCE RATIO, MU = 0.4			H,C OR		ADVANCE I	RATIO: MU = 1.0		
	(0.21)R				_		(0.21)R		
0 .1821+02	10121711			0	-,2560+03		1012111		
1-5,03223+02	4438+027713+02	6717+01	.1613+01	1-5,C	1304+03	4428+03	4505+03	.2683+02	-2246+02
1-5.5 .2143+03	2195+021341+02	.3274+01	.8713-00	1-5.5	.2512+03	5279+02		.1558+03	.2186+02
	(0.35)R						(0.35)R		
0 .1295+02				. 0	3817+03				
1-5.C6072+02	4472+021140+03 3282+023709+02	1278+02 .5353+01	.1956+01 .7605-00	1-5,C 1-5,5	1755+03 -3295+03	5629+03	6482+03	.8001+02	.4537+01
1-5.5 .3334+03	3282+023709+02 (0.45)R	.5353+01	. 1603-00	1-5/5	.3295+03	6791+02	.1183+04 (0.45)R	.2512+03	<b>1852+02</b>
01954+02	10.43/K			3	~.4301+03		(U,45)K		
1-5.07621+02	2718+021272+03	1873+02	.9370-00		1806+03	~.5462+03	7091+03	.1263+03	2106+02
1-5/5 .3682+03	3734+025421+02	.6367+01	.1184+01	1-5.5	.3305+03	6677+02		.3002+03	6708+02
• • • • • • • • • • • • • • • • • • • •	(0.55)R						(0.55)R	***************************************	
07420+02				0	4302+03				
1-5,C8074+02	6783-001265+03	2501+02	1172+01 .2338+01		1641+03	4613+03	6889+03	.1613+03	4636+02
1-5/5 .3436+03	3826+026376+02 (0.75)R	.6651+01	.2338+01	1-5.5	.2913+03	5737+02	.1368+04 (0.75)R	.3169+03	1118+03
01352+03	(U./5)K			0	2623+03		(0.75)K		
1-5,C4933+02	.3277+027741+02	4.2488+02	4229+01		8385+02	1981+03	4000+03	.1325+03	5298+02
1-5.5 .1582+03	2523+024486+02	.4294+01	.3898+01	1-5,5	.1391+03	2577+02		.2094+03	1118+03
•	(0.85)R						(0.85)R	•===	
08530+02					1254+03				
1-5.02315+02	.2228+023753+02	-,1409+02	2828+01		3750+02	8146+02	1880+03	.6878+02	2926+02
1-5,5 .6382+02	1262+022210+02	.2104+01	.2484+01	1-5,5	.6038+02	~.1085+02	.4092+03	.1027+03	6038+02
N+C OR 5	ADVANCE RATIO, MU = 0.5			N.C OK S	s	ADVANCE F	ATIO, MU = 1.4		
	(0.21)R						(0.21)R		
01343+02				0	3836+03		.===.4-		
1-5.C4509+02	1177+032039+03	-,3079+02	3132+01		2383+03	3348+03	.1798+03	.7713+03	.9910+02
1~5.S .2503+03	3898+021266+02 (0.35)R	.3587+01	.1386+02	1-5,5	.2705+03	1034+02	.6143+03 (0.35)R	4.6102+01	1217+03
02739+02	(U.35)K			0	-,5609+03		10.33/K		
1-5,C8259+02	+.1422+033021+03	4.3986+02	1778+01		3176+03	4170+03	.2741+03	.1121+04	.1133+03
1-5.5 .4065+03	6119+024851+02	.7237+01	.9992+01	1-5,5	.3273+03	1047+01	-9400+03	1963+02	1557+03
	(0.45)R						(0.45)R		
05750+02				0	6210+03				
1-5.C1012+03	1173+033370+03	<b>4.4806+02</b>	3945-00		3238+03	3962+03		.1236+04	.9693+02
1-5,5 .4621+03	7133+027726+02	.1063+02	.2780+01	1-5,5	.3007+03	.1156+02	.1079+04 (0.55)R	.4794+02	1523+03
01043+03	(0.55)R			В	-,6081+03		(0.221K		
1-5.C1043+03	6310+023343+03	4.6023+02	.1709-00		6081+03	3251+03	.3167+03	.1205+04	.6757+02
1-5,5 .4433+03	7378+029588+02	.1391+02	4365+01	1-5,5	2904+03	3251+03 -2351+02		.7183+02	1298+03
_ 5.5 14.55465	(0.75)R	,		. 5/5			(0.75)R		
01440+03				0	3535+03				
1-5.C5898+02	.3616+022028+03	6332+02	8571-00		1433+03	1290+03	.1933+03	.6952+03	.1318+02
1-5,5 .2167+03	4785+027250+02	.1322+02	8284+01	1-5.5	.8048+02	.2530+02		.6552+02	5707+02
	(0.85)R				4480.00		(0.85)R		
08769+02	3280400 - 0700400	±.3707+02	7983-00	0	1652+03	- 50/5:22	0178465	2010.67	10/7/61
1-5,C2660+02 1-5,S .9047+02	3280+029789+02 2361+023660+02	.7377+01	46 <b>99</b> +01		6287+02	5065+02		.3239+03	.1967+01 2370+02
1 013 ,707/702	2361+023660+02	*1211401	~. 7077701	1-5:5	.2854+02	.1369+02	.3163+03	.3442+02	-,23,4465

## TABLE 3. INFLOW RATIO TRANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

#### FP = 0.001 (FOR MU = 0.25,0.4.0.5) FP = 0.000447(1+MU)++2 (FOR MU = 8.7.1.0.1.4)

		FF = 0.00044111	THUITE TOK MU = E.	(11.011.4)				
N.C OR S	ADVANCE RATIO, MU = 0.25		N,C OR		ADVANCE RATIO, MU = 0.7			
	(0.21)R				(0.21)R			
0 .1273+03				5334+03				
1-5.C1891+03 1-5.S .5214+03	.7828+023272+02 1061+031444+02	.8633+012529 2834+012795		6115+032382+ .8994+037773+		3783+03	3988+03	
1-3/3 ,3214403	(0.35)R	-12034401 -12793	+01 1-5/5	.8994+0377734	031287+03 (0.35)R	7800+03	7466+03	
0 .2314+03	10.5571		.0	7811+03	(0.35)K			
1-5,05024+03	4150+02	.1929+011396	+01 1-5,0	1261+041111+	031133+04	<b>1417+03</b>	3833+03	
1-5,5 .7957+03	1161+035016+02	.1523+014185		.1516+04 ~.1273+	044127+03	÷.7355+03	8407+03	
	(0.45)R		_		(0.45)R		••	
0 .1669+03 1-5,C7141+03	.2527+033141+02	÷.5763+01 .1974	0	8808+03 1617+04 .2107+				
1-5,5 .8610+03	9246+028347+02	5763+01 .1974 .2768+013387		1617+04 .2107+ .1785+041518+		.1649+02	1819+03	
1-3/4 (8810+03	(0.55)R	.2766+013367	1-3/3	.1705+041518+	048432+03 (0.55)R	±.3981+03	-,5460+03	
01135+03			0	9562+03	1070571			
1-5.C8614+03	-3388+033927+01	÷.1239+02 .1682		1771+04 .7571+		6989+02	.1662+03	
1-5,5 .8103+03	5559+021217+03	1721+012257	-00 1-5,5	.1871+041682+		.1170+03	.7960+02	
01300+04	(0.75)R		a	9102+03	(0.75)R			
1-5,06135+03	·4230+03 .9072+02	8418+01 .1368		9872+03 .1950+	041369+04	4.1195+04	.9286+03	
1-5.5 .2673+03	.1239+021626+03	3290+0° .1262		.1160+041439+		.1062+04	.1742+04	
	(0.85)R				(0.85)R	******	********	
01277+04			0	6101+03				
1-5.C2989+03	.3068+03 .8981+02	1778+01 .2253		3933+03 .1586+		4.1196+04	.7858+03	
1-5,5 .2308+02	.1732+021188+03	3392+02 .1268	+02 1-5.S	.5663+038915+	032498+04	.8788+03	.1561+04	
N.C OK S	ADVANCE RATIO, MU = 0.4		N.C OR	S ADVANC	E RATIO. MU = 1.0			
	ABTAILE NATION NO - 014				E KX1101 MO = 1.0			
	(0.21)R				(0.21)R			
0 .2505+02			0	1134+04				
1-5.C2935+03	.7951+021338+03	.6761+02 .3209		1149+043100+		1638+04	2282+04	
1-5,5 .7609+03	2685+031103+02 (0.35)R	5860+022535	1-5,5	.1236+041334+	044380+03 (0.35)R	<b>1728+04</b>	1590+04	
0 .1094+03	10.5578		0	1929+04	(U.35)R			
1-5.07665+03	.3282+031912+03	.5187+02 .4377	+02 1-5,0	2012+047327+	032833+04	~.1531+04	2401+04	
1~5.5 .1273+04	3360+031435+03	-,2392+02 -,2571	1-5,5	.1468+042002+	041020+04	1803+04	1242+04	
	(0.45)R				(0.45)R			
0 .6257+02 1-5,C1083+04	.5593+031765+03	.5022+01 .3456		2241+04 2351+048918+				
1-5/5 .1454+04	3156+032928+03	.3770+011564		2351+048918+ .1292+042310+	03 <b>3443+04</b> 04 <b>1540+0</b> 4	8844+03	1271+04	
1 3/3 11434104	(0.55)R	13770401 -11304	10.3	.1292104 -123104	(0.55)R	1076+04	-,5222+03	
01803+03			0	2235+04	10105711			
1-5,61300+04	·8150+031009+03	±.6809+02 .4680	+01 1-5.C	2318+047753+		.6991+01	.9237+03	
1-5,5 .1435+04	2609+034858+03	.9838-00 ,1686	1-5,5	.9335+032543+		.2468+03	.2194+03	
01264+04	(0.75)R		0	1043+04	(0.75)R			
1-5.C9148+03	.1046+04 .2207+03	2206+031076		9143+03 .2906+	034305+04	.1301+04	.5770+04	
1-5.5 .5058+03	9923+027818+03	1622+03 .4193		.9155+022331+		.3006+04	.6319+03	
	(0.85)R				(0.85)R	******	.0027100	
01230+04			0	3750+03				
1-5.C4409+03 1-5.S .4435+02	.7480+03 .2479+03 3967+026032+03	1870+031077		2338+03 .4732+		.1000+04	.4710+04	
	3967+026032+03	1796+03 .3811	1-5/5	7150+021474+	1734+04	.2467+04	.3291+03	
N,C OR S	ADVANCE RATIO, MU = 0.5		N,C OR S		RATIO, MU = 1.4			
	(0.0110			•				
01377+03	(0.21)R		0	1856+04	(0.21)R			
1-5.63037+03	5102+022842+03	.7680+02 .4806	no 1-5.C	2927+04 .6872+0	32136+04	4.1315+04	2606+04	
1-5.5 .6228+03	4369+03 .5657+02	2058+031117	03 1-5,5	.1860+041952+0		1115+04	.1645+04	
	(0.35)R				(0.35)R	******	*1010101	
01031+03				2710+04				
1-5,09534+03	-2710+034304+03	.9699+02 .7642		4445+04 .6377+0		1052+04	2521+04	
1-5.5 .1488+04	6412+031428+03 (0.45)R	2.1361+031368	03 1-5,5	.1791+041953+0	14 .1763+04 (0.45)R	<b>4.</b> 9857+03	.1767+04	
01377+03	(0,45/K		0	2891+04	(0.45)K			
1-5.61320+04	.6201+034453+03	.3923+02 .6739		4719+04 .3515+0	34163+04	2680+03	1234+04	
1-5.5 .1785+04	6979+034222+03	3876+021009	03 1-5.5	.1235+041487+0	.1086+04	2.9266+02	.7165+03	
03334+03	(0.55)R		_	0407.04	(0.55)R			
03339+03 1-5,C1563+04	-1023+043687+03	1141+03 .1850-	0	2693+04 4147+044648+0	- E100+00	*****	0002.05	
1-5,5 .1858+04	~.6 <b>9</b> 96+03	1141+03 .1850- .3165+021069-	02 1-5,5	4147+044648+0 .5797+039750+0		.8145+03	.8883+03	
	(0.75)R		1 3/3		(0.75)R	.1488+64	1420+04	
01246+04			0	1278+04				
1-5.01001+04	.1445+04 .8981+02	±.6478+031964-	03 1-5,C	~.1047+04 <b></b> 5970+0		.2244+04	.4470+04	
1-5.5 .8475+03	4761+031620+04 (0.85)R	<b></b> 1045+03 .2853⋅	03 1-5.5	1306+034735+0	3 .7038+03	.4286+04	5698+04	
01174+04	(0.85)K		0	5326+03	(0.85)R			
1-5,C5172+03	.1047+04 .2003+03	6088+032030		4156+024381+0	33596+04	.1585+04	.3353+04	
1-5.5 .2275+03	2720+031312+04	1601+03 .2801		1070+033108+0		.3163+04	4340+04	
		•=						

## TABLE 3. INFLOW RATIO THANSFER COEFFICIENTS FOR AN ARTICULATED BLADE

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		FP = 0.00112(1+MU)**2		(FOR MU = 8.7.1.0.1.4)					
N.C OR S	ADVANCE RATIO, HU = 0.25			N,C OR S		ADVANCE R	ATIO: HU = 0.7		
******	(0.21)R			******	-		(0.21)R		
0 .1469+03				. 0	4643+03	3228+03	1104+04	4.8012+03	~.1121+04
1-5.C2098+03 1-5.S .5031+03	.6059+023479+02 1025+032378+02	.3657+01 4.8030+01	1992+01 7778+01	1-5.5	6233+03 .9074+03	7493+03	2066+03	±.4266+03	~.3425+02
	(0.35)R			0	-,7182+03		(0.35)R		
0 .1969+03 1-5.C -,4827+03	.1464+033971+02	.1663+01	.1732+01		1191+04	3158+03	1670+04	4.6743+03	1009+04
1-5.5 .7615+03	1226+036108+02 (0.45)R	£.4405+01	7234+01	1-5.5	.1469+04	1242+04	~,5205+03 (0.45)R	<b>4.39</b> 07+03	-,1155+03
0 .8158+02	(0.45)K			٥	~.8317+93				
1-5,0 -,6511+03	.2171+032866+02 1107+039222+02	∸.1246+01 ∸.1146+01	.4855+01 ~.2502+01	1-5.C 1-5.S	1475+04 .1692+04	8411+02 1496+0#	1929+04 9249+03	~.4268+03 ~.2138+03	3950+03 1777+03
1-5.5 .8187+03	1107+039222+02 (0.55)R	-,1140+01	-12502-01			-11430.04	(Q.55)R		
02139+03	.2830+036318+01	4.4236+01	.6466+01	1-5-0	8895+03 1540+04	.3426+03	2072+04	4.2546+03	,5377+03
1-5.C7337+03 1-5.S .7478+03	8564+021211+03	-,8799-00	.5536+01	1-5,5	1706+04	1623+04	1482+04	,2215+02	-,2204+03
0 ~.8990+03	(0.75)R			n	-,6519+03		(0.75)R		
1-5.C ~.4752+03	.2866+83 .4017+02	5886+01	.2459+01	1-5.C	-,8527+93	.1072+04	-,1642+04	4.3144+03	.1880+04
1-5.5 .2759+03	2656+021223+03 (0.85)R	<b>4,9504+01</b>	.1948+02	1-5,5	,9962+03	1209+04	-,2065+04 {0.651R	.3178+03	1736+03
06997+03				0	3570+03				4775.44
1-5.C2285+03 1-5.5 .7921+02	.1747+03 .3307+02 8643+017428+02	3586+01 8597+01	.1981-00 .1452+02	1-5,C 1-5,S	3742+03 .4727+03	.7761+03 6560+03	9295+03 1356+04	4.2555+03 .2251+03	.1335+04 9283+02
1-212 11357405			(1.06.02		-				
NIC OH S	ADVANCE RATIO, MU = 0.4			N.C OR		ADVANCE F	RATIO: MU = 1.0		
·	(0.21)R						(0.21)R		
0 .5483+02 1-5.C3157+03	.7094+021482+03	.1532+02	.9311+01	0 1~5,€	1061+04 1146+04	4106+03	2372+04	±,1699+04	1234+04
1-5.5 .7385+03	2616+034256+02	5924+02	5912+02	1~5.5	.1116+04	1343+04	.1954+03	4.4636+02	.1150+64
0 .9538+02	(0.35)R			0	1765+04		(0.35)R		
1-5.07238+03	.2946+032082+03	.1709+01	.2025+02	1~5.C	19N1+04	8452+03		4,1593+04 4,2670+01	-,1113+05 :1129+04
1-5/5 .1214+04	~.3506+03, ~.1800+03 (0.45)R	3843+02	~.5673+02	1-5,5	.1288+04	-,2069+04	(0.45)R	-,2870401	11127704
02175-00		-,2839+02	.1867+02	0	~.2058+04 ~.2156+84	1026+04	4333+04	±.1045+04	5119+03
1-5/C9745+03 1-5/5 .1369+04	.4995+032016+03 3533+033200+03	1438+02	2614+02	1-5,5	.1129+04	2385+04	4050+03	1554+1	.2851+03
	(0.55)R			0	~.2000+04		(0.55)R		
02640+03 1~5+C1096+04	.6939+031477+03	-,7575+02	.2671+01		2042+04	9711+03	4861+04	4,4035+03	.3316+03
1-5-5 .1301+0*	3154+034722+03 (0.75)R	427 11	.2472+02	1-5,5	.8440+03	2486+04	6938+03 (0.75)R	.4320+03	1235+04
08919+03				D	9509+03				
1-5.67053+03 1-5.5 .5094+03	.7243+03 .3304+02 1514+035613+03	1483+03 3920+02	4917+02 .1118+03	1-5,C 1-5,S	8645+03 .2607+03	2787+03 1730+04		.2689+03 .8150+03	.1376+04 3553+04
	(G.65)R	.5,20.02	***************************************			***************************************	(0.85)R		*
06881+03 1-5.C3373+03	.4402+03 .5507+02	1053+03	4202+02	0 1-5.C	-,3801+03 -,3080+03	3385+02	2354+04	.1971+03	,9394+03
1-5.5 .1511+03	6768+023576+03	A.3756+02	.8394+02	1-5.5	.899#+02	9065+03		.5466+03	2467+04
N+C OR 5	ADVANCE RATIO, MU = 0,5			N.C DR		ADVANCE	RATIO, MU = 1.4		
	(0.21)R				^_		(0.21)R		
09261+02			7207.20	. 0	1661+04				
1-5.C4039+03 1-5.S .8053+03	3088+023100+03 4394+031620+02	5201+02 1673+03	7327+02 1476+03	1~5,C 1~5,S	-,2599+04 .1589+04	•2526+03 ••1838+04		4,1087+03 .5266+03	.1148+04 .7392+03
0 -,9093+02	(0.351R						(0.35)R		
1-5,08895+03	.2540+034683+03	4.4913+02	4508+02	0 1-5•C	-,2475+04 -,3964+04	3663+02	~,3395+04	,1812+03	.9585+03
1-5.5 .1409+04	6651+032208+03	1222+03	1615+03	1-5.5		2056+04	.2141+04	.6948+03	.5512+03
01726+03	(0.45)R			0	2672+04		(0.45)R		
1-5:C1179+04 1-5:S .1661+04	.5564+035007+03 7418+034778+03	7287+02	.1326+01 -,9205+02	1-5,C	4207+04	3741+03		.5393+03	.1705+03
7-212 17001104	(0,55)R	4.4202+02	7203402	1-5.5	.1212+04	1754+04	.1995+04 (Q.55)R	.1073+04	.1091+02
03947+03		4 4444.65	****	0	-,2473+04	- 4707403	- 5601405	504407	- 4971443
1-5,61312+04 1-5,5 .1663+04	.8655+034517+03 7427+038043+03	4.1481+03 .3409+02	.4 <del>9</del> 63+02 .4591+02	1-5,5 1-5,5	3647+04 .7204+03	6707+03 1275+04	.1928+04	.9104+03 .1778+04	9271+03 -,7216+03
• • • • • • • • • • • • • • • • • • • •	(0.75)R					<del>-</del> -	(0.75)R		
09075+03 1-5.68299+03	.9985+031512+03	4.3323+03	.7915+02	1-5,C	1154+04 1102+04	6783+03	3773+04	.1031+04	-,2106+04
1-5.5 .8044+03	4666+031138+04	6300+02	.3235+03	1-5,5		3910+03		.2560+04	1463+84
06792+03	(0,85)R			a	4750+03				
1-5.63937+03	.6201+033515+02	-,2493+03	.#811+02 .251 <b>9</b> +03		2524+03	3709+03 1400+03		.5992+03 .1639+04	-,1350+64 -,9329+03
1-5.5 .3124+03	2363+037603+03	.3030+02	'S31##02	1-5.5	.5285-00	1400+03	* ********	* 1834484	-, 742 7783

# 

		FP = 0.00447(I+MU)##2	(FOR HU # 0.771.071.47			
N.C OR S	ADVANCE RATIO, MU = 0.25		N.C OR S	ADVANCE RATIO, NU = 0.7		
	(0.21)R		03466+03	(0.21)R		
0 .1055+03 1-5+C2074+03	.2689+025887+02	4,4909+011629+00	03466+03 1-5,C5969+03	5996+031343+04	4.3910+03	6130+02
1-5,5 .4260+03	7369+021861+02	*.2207+01 .1638-00	1-5.5 .8191+03	4879+03 .4813+03	.3081+03	.2262+83
1 3/3 1-2/00/00	(0.35)R	***************************************	2 0.0 (02,20.0	(0.35)R	10001.00	,
0 .9030+02			05280+03			
1-5,03763+03	.6498+028167+02	2.8485+01 .1016+01	1-5.08659+03	6827+031990+04	<b>+.</b> 5339+03	8784+62
1-5,5 .6149+03	9481+024501+02	+.1418+016101-00	1-5,5 .1106+04	6932+03 .5611+03	.4934+03	.1716+03
01651+02	(0.45)R		06063+03	(0.45)R		
1-5.C4577+03	.9511+028528+02	+.1129+02 .1516+01	1-5.C9553+03	5753+032235+04	4.5573+03	9586+02
1-5.5 .6440+03	9329+026344+02	±.7726-009937-00	1-5/5 .1306+04	7507+03 .48BB+03	.5884+03	.4060+02
2 0.0	(0,55)R			(0.55)R	***************************************	.,,,,,,
01913+03			06210+03			
1-5.C4669+03	.1167+037805+02	±.1375+02 .1120+01	1-5.C9404+03	3854+032240+04	4.5164+03	-,9331+02
1-5.5 .5696+03	8073+027354+02 (0.75)R	+.8411-008317-00	1-5,5 .1283+04	7248+03 .3487+03 (0.75)R	.6241+03	1112+03
03881+03	(0.75/K		03993+03	(U.757K		
1-5.C2589+03	.9409+023928+02	-,1213+02 -,8894-00	1-5,C5662+03	4268+021390+04	<b>△.</b> 2772+03	5567+62
1-5.5 .2310+03	3745+025180+02	4.1928+01 .3660-00	1-5.5 .7699+03	4215+03 .7128+02	.4227+03	-,2253+83
	(0.85)R			(0.85)R		
02463+03		6661+018629-00	01959+03			
1-5,C1154+03	.4935+021741+02 1623+022566+02	6661+018629-00 1363+01 .4261-00	1-5.C2718+03 1-5.S .3691+03	135+026743+03 1999+03 .1090+02	÷.1274+03	2625+02
1-5.5 .8599+02	10234022366402	1363401 .4501-00	1-212 13031+03	1999+03 .1090+02	.2108+03	1348+03
N.C OR S	ADVANCE RATIO, MU = 0.4		N,C OR S	ADVANCE RATIO: MU = 1.0		
			*			
	(0.21)R			(0.21)R		
0 .4137+02			08363+03			
1-5.C3151+03	1110+022501+03 1933+032822+02	5387+021870+02 .8129-004091-00	1-5.C9572+03 1-5.S .7322+03	9131+031615+04	.1396+03	.1571+03
1-5.5 .6518+03	1933+032822+02 (0.35)R	.8129-004091-00	1-5.5 .7322+03	6018+03 .1747+04 (0.35)R	.7 <del>996+</del> 03	.1261+03
0 .2073+02	10.337K		01211+04	(U.35)K		
1-5.C5702+03	.6918+023629+03	±.7785+021431+02	1-5.C1283+04	1226+042387+04	.3962+03	.1175+03
1-5,5 .9935+03	2706+031163+03	.8488+015301+01	1-5/5 .9541+03	7770+03 .2557+04	.1279+04	.2561+02
	(0.45)R		_	(0.45)R		
07405+02	.1526+033923+03	±.9273+027294+01	01352+04	4050.44		
1-5,C6930+03 1-5,5 .1077+04	.1526+033923+03 2840+031927+03	.1374+026722+01	1-5.C1316+04 1-5.S .9507+03	1259+042670+04 7667+03 .2837+04	.6205+03	.2689+02
1-5+5 .1077+04	(0.55)R	*1014102 *0122102	1 3/3 19301+00	(0.55)R	,1520+04	11 <del>80+0</del> 3
02308+03	101007		01302+04	10000711		
1-5.C7070+03	.2245+033711+03	1057+032142+01	1-5.C1191+04	1142+04265 <b>2+0</b> 4	.7868+03	7509+02
1-5.5 .9795+03	2606+032495+03	.1551+023982+01	1-5.5 .8310+03	6619+03 .2796+04	.1597+04	2599+03
	(0.75)R		07632+03	(0.75)R		
03973+03 1-5,C3928+03	.2096+031976+03	÷.9030+021330+01	07632+03 1-5,C6037+03	5804+031598+04	.0420+03	1455+03
1-5,5 .4141+03	1306+032056+03	.7797+01 .5715+01	1-5/5 .3892+03	3008+031598+04	.1048+04	1455+85 2972+83
1-3/3 .4141703	(0.85)R	***************************************	1 5/5 155/2155	(0.85)R	1,2040104	-12712743
02488+93			03599+03	·		
1-5.C1754+03	.1133+038945+02	4974+021411+01	1-5.C2690+03	2590+037610+03	.3327+03	8541+02
1-5.5 .1567+03	5759+021075+03	.2976+01 .4902+01	1-5,5 .1673+03	1274+03 .7885+03	.512 <del>9</del> +03	1641+03
N.C OR S	ADVANCE RATIO, MU = 0.5		NIC OR S	ADVANCE RATIO: HU = 1.4		
*	10.0110					
06504+02	(0.21)R			(0.21)R		
1-5.03961+03	1472+035069+03	1591+035072+02	01192+04 1-5:C1692+04	4669+03 .1213+03	.2203+04	.4128+03
1-5.5 .7474+03	3117+03 .2688+02	.2496+02 .3796+02	1-5/5 .8400+03	4663+03 .2710+04	4.6963+02	6413+03
	(0.35)R			(0.35)R	,	
01124+03			01646+04			
1-5.C7055+03 1-5.S .1187+04	9213+027565+03 4664+038919+02	1984+034229+02 .4636+02 .1337+02	1-5.62195+04	5805+03 .2288+03	.3371+04	.4824+03
1-013 .110/+04	4664+038919+02 (0.45)R	.4036402 .1337402	1-5,5 ,1012+04	4517+03 .3852+04 (0.45)R	.4678+02	8009+03
01958+03	,0173/10		01734+04	10+421K		
1-5.08516+83	.1851+028384+03	±.2167+032500+02	1-5.C2178+04	5503+03 .3000+03	.3868+04	.4247+03
1-5/5 .1328+04	5143+032188+03	.6337+021384+02	1-5.5 .9253+03	2920+03 .4164+04	.1861+03	7631+03
	(0.55)R			(0,55)R		
03210+03	1040107 - 0140107	± 0401.03 - 1040:00	01614+04			
1-5,C8660+03 1-5,S .1253+04	.1464+038162+03 4941+033383+03	+.2401+031046+02 .7770+023212+02	1-5.C1891+04 1-5.5 .7188+03	4503+03 .3383+03 8661+02 .3981+04	.3917+04 .3109+03	.3109+03
1-013 1103404	(0.75)R	**************************************	1-242 ./188+03	8661+02 .3981+04 (0.75)R	*3103+02	6287+03
04139+03			08560+03	1011378		
1-5,C4816+03	.2341+034631+03	2171+033060+01	1-5.C ~.&6&6+03	~.1773+03 .2393+03	.2401+04	.8063+02
1-5.5 .5869+03	2673+033361+03	.6758+022320+02	1-5.5 .2392+03	-1399+03 .2222+04	.3036+03	-,2525+63
6 - 0000107	(0.85)R		<u> </u>	(0.85)R		
02494+03 1-5,62156+03	.1393+03 -,2158+03	1234+032587+01	03879+03 1-5,C3687+03	6927+02 .11B6+03	.1142+04	.2159+02
1-5+5 ,2387+03	1212+031851+03	.3680+029619+01	1-5/S .8307+02	•9590+02 •1186+03 •9590+02 •1023+04	.1615+03	997 <del>9+</del> 02
			1-373 1030/TOE		*1013443	77/7792

#### (G) MP = 0.5 F) = 0.001 (FOR MU = 0.25,0.4,0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

			., - 0,	00044111.1101						
N,C OR S		AUVANCE RATIO, MU = 0.25			N.C OR S		ADVANCE R	ATIO. MU = 0.7		
		(0.21)R				=		(0.21)R		
.0	.1364+03				0	-,1057+04				
	5045+03	.2788+039316+02	.2295+02	.2732+01		1517+04	.2679+03	9016+03	<b>≠.</b> 1642+03	8389+03
1-5.5	-8657+03	2301+033718+02 (0.35)R	÷.1801+02	1308+02	1 <b>-</b> 5,S	.1485+04	1441+04		±.1476+04	1126+04
0	.3242+03	(0.35)K			0	1468+04		(0.35)R		
1-5.C	1312+04	.5435+031023+03	.8790+01	.9576+01		2718+04	.9721+03	1548+04	.3256+03	7664+03
1-5,5	·11d9+04	1523+031170+03	+.2116+01	9033+01	1-5.5	.2740+04	1980+04	.3077+02	1334+04	1472+04
		(0.45)R				•••		(0,45)R	•==•	
0	.2027+03				0	1540+04				
1-5.C 1-5.S	1344+04 .1177+04	.7014+035968+02 2256+011851+03	1061+02	.1112+02		3231+04	.1664+04	1872+04	.4075+03	3393+03
1-3/3	.11//+04	2256+011851+03 (0.55)R	.5599+01	2163+01	1-5.5	.2458+04	2056+04	8200+03 (0.55)R	÷.6122+03	1088+04
0	256b+03	1010571			0	1487+04		(0.55)#		
1-5.C	2202+04	.8161+03 .3074+02	4.3109+02	.5720+01		3290+04	.2474+04	2054+04	<b>4.1767+03</b>	.3418+03
1-5,5	.97h9+03	·1847+032556+03	<b>5373+01</b>	.4678+01	1-5.5	.2413+04	1962+04	2238+04	.4884+03	.8500+01
n	2123+04	(0.75)R						(Q.75)R		
	-,1519+04	.6749+03 .2960+03	4.4144+02	3124+02	0	9802+03 1412+04	.3336+04	1560+04	+.3337+04	.1686+03
1-5.5	5045+02	·4140+032988+03	±.1067+03	.5479+01	1-5,5	.1358+04	1259+04	5275+04	.2516+04	3511+04
		(0.85)R			1 3/3	***********		(0.85)R	******	30002.01
	~.2058+04				0	5573+03				
	7174+03	.3967+03 .2767+03	4,2532+02	3440+02		3743+03	-2373+04	8891+03	3215+04	.1395+0L
1-512	2022+03	.3072+032064+03	1117+03	.1245+01	1-5.5	.6422+03	7092+03	4250+04	.2056+04	.3258+0
NIC OR S		ADVANCE RATIO, MU = 0.4			N C 00		ADMANGE 6			
		ADVANCE RATION NO - 0.4			N.C OR		ADVANCE F	RATIO, MU = 1.0		
		(0.21)R						(0.21)R		
	316b+02				0	-,2085+04				
	7339+03	·4999+032817+03	.1587+03	.1348+02		2523+04	.3822+03		÷.1786+04	3118+94
1-5,5	.1271+04	5624+03 .2952+02	1269+03	1013+03	1-5.5	.2011+04	2605+04		<b>-</b> .2852+04	1151+04
0	.6011+02	(0.35)R			0	2400.00		(0.35)R		
1-5.C	1841+04	.1200+043911+03	.1229+03	.7728+02		3122+04 3731+04	.1123+03	3089+04	<b>1597+0</b> 4	3493+04
1-5,5	.1961+04	4729+032379+03	4.3238+01	9516+02	1-5,5	.2039+04	3148+04		₽.2806+04	1011+04
		.(0.45)R		*********			***************************************	(0.45)R		*******
	1670+02				0	3320+04				
1-5,C 1-5,5	2561+04 .2109+04	-1681+043232+03 1950+035416+03	.8536+01	9393+02		3911+04	1798+03		9214+03	2067+04
1-5/3	.2109404	(0.55)R	.7715+02	5060+02	1-5.5	.1475+04	3034+04	5457+03 (0.55)R	<b>∸.1350+0</b> 4	6029+03
0	3711+03	10133711			0	3002+04		(U.55/K		
	3035+04	-2061+048432+02	1764+03	.4496+02		3444+04	3819+03	4933+04	.1242+03	.9461+03
1-5.5	.1924+04	.1832+039175+03	.5032+02	.1833+02	1-5,5	7141+03	2829+04	1688+04	.1221+04	1896+03
10	1016.01	(0.75)R						(0.75)R		
	1919+04 2052+04	.1754+04 .8388+03	5845+03	3051+03	0	9298+03	4			****
1-5.5	.3207+03	.7648+031423+04	5202+03	3051+03 -1555+03		8226+03 3602+03	1409+03 2360+04	5340+04 2764+04	.6820+03 .6410+04	.8060+0 <b>4</b> .655 <b>8</b> +02
		(0.85)R	*3202703	.1333403	1-5/3	3002403	-12300404	(0.85)R	*0410404	.0336702
	1837+04				0	1300+03				
	9515+03	.1021+04 .8549+03	5010+03	3336+03	1-5.C	.4950+02	.3416+02	3513+04	.4607+03	<b>.6696+04</b>
1-5.5	2651+03	·6105+031074+04	<b>5851+03</b>	.1347+03	1-5,5	3275+03	1553+04	1868+04	.5136+04	1211+02
N.C OR S		ADVANCE RATIO, MU = 0.5			N.C OR	5	ADVANCE	RATIO, MU = 1.4		
	•					-	NOTAILCE !	KKITOL MO = 1.4		
•	7550.07	(0.21)R						(0.21)R		
	3559+03 9497+03	.4620+034499+03	.3126+03	2042.24	. 0	3230+04				
1-5.S	.1350+04	8765+03 .2762+03	4099+03	2819+01 2633+03	1-5,C 1-5,S	5391+04 .2807+04	1208+04	1468+04	4.9878+03	2 <del>996</del> +04
		(0.35)R	-14099403	-12033703	1-5/5	.2007+04	+.3219+04	.4902+04 (0.35)R	±.2500+04	.2138+04
0	3358+03				0	3866+04		(U.35)K		
	2178+04	·1451+047345+03	.3471+03	.1247+03	1-5.C	-,7193+04	•6869+03	2773+04	<b>4.5308+03</b>	3318+04
1-5,5	.2267+04	9783+037693+02 (0.45)R	<b>4.</b> 1612+03	3299+03	1-5,5	.2203+04	2083+04	.4287+0A	2003+04	.1744+04
0	3629+03	(U.45)K			n			(0.45)R	*- *- *-	*********
	2931+04	-2202+047387+03	.1502+03	.1694+03		3487+04 7001+04			_	
1-5.5	.2596+04	7708+036284+03	.9264+02	2419+03	1-5,5	.1084+04	2084+03	3783+04	4336+03	1919+04
_		(0.55)R			- 5.5		4166+03	.2800+04 (0.55)R	<b>1416+05</b>	.3446+03
0 1-5.C	6005+03 3357+04	0070400			0	2685+04				
1-5,5	3357+04	4845+03 4038+031430+04	.3005+03	.9020+02		5679+04	1230+04	4791+04	.1770+04	.9059+03
3/3	*6378704	4038+031430+04 (0.75)R	.2213+03	8891+01	1-5.5	.1267+03	.9732+03	1617+04	.2789+04	1755+04
0	1804+04	(0+13/R			O	7924+03		(0.75)R		
	2168+04	.2527+04 .8671+03	±.1720+04	5692+03		1208+04	2093+04	- 500645"	3000.00	
1-5,5	9265+03	.4354+032966+04	4.4167+03	.7825+03	1-5.5	.3528+02	-8950+03	5006+04 .1695+04	.3488+04 .7375+04	.6609+04
•	1470.00	(0.85)R						(0.85)R	. 10/3404	4868+04
0 1-5,0	1678+04 9594+03	.1481+04 .1026+04	t tEaste		0	2379+03				
1-5.5	.9850+02	.1481+04 .1026+04 .4647+032408+04	<b>4.1598+04</b> <b>4.6040+03</b>	6303+03 .7673+03	1-5,0	.1786+02	1355+04	3121+04	.2420+04	.5138+04
	,		0040403	• 1013+03	1-5,5	.2348+03	-2315+03	.1432+04	.5334+04	3502+04

# 

		FP = 0.	.00112(1+MU)**2	(FOR MU = 0.	7,1.0,1.4)				
NeC OR S	ADVANCE RATIO, MU = 0.25			N.C OR	S	ADVANCE	RATIO- MU = 8.7		
~~~~~	(0.21)R				-				
.0 .2219+03	10.2174			0	9250+03		(0.21)R		
1-5.C5558+03	.2500+039038+02	.6175+01	3629+01	1-5,C	1499+04	-1916+03		*,1256+04	1754+04
1-5.5 .8216+03	2161+034515+02 (0.35)R	4.2191+02	1644+02	1-5,5	.1478+04	1389+04	.7803+02 (0.35)R	±.9286+03	1527+03
0 .2812+03				0	1349+04		(U,35/R		
1-5.C1266+04	.4922+039964+02	3638+01	.2802+01		2591+04	.7310+03		*.1020+04	1634+04
1-5,5 .1145+04	1753+031264+03 (0.45)R	1262+02	1442+02	1-5.5	.2199+04	2006+04	3970+03 (0.45)R	±.7974+03	3631+03
0 .8287+02				0	1456+04		10.4518		
1-5.C1697+04	-6389+036415+02	1620+02	.6257+01	1-5.C	3027+04	.1288+04	-,2583+04	6574+03	-,7103+03
1-5.5 .1146+04	6599+021947+03 (0.55)R	±,6905+01	6298+01	1-5.5	.2391+04	2186+04	1178+04 (0.55)R	<b>-</b> .2929+03	4201+03
0 -,3980+03				0	1390+04		10.337K		
1-5:C1896+04 1-5:5 .94d6+03	.7248+03 .4883+01 .6994+022565+03	3033+02	.4437+01		2932+04	·188B+04	2733+04	4953+03	.7421+03
1-3/3 .9486+03	(0.75)R	÷.1280+02	.5078+01	1-5/5	.2277+04	2158+04	2299+04 (0.75)R	.4207+03	3130+03
01478+04				0	7608+03		1017571		
1-5,C1192+04 1-5,5 .1837+03	.5427+03 .1429+03 .2210+032545+03	4088+02 4954+02	1249+02 .2079+02	1-5,C 1-5,S	1402+04	2173+04	1956+04	8574+03	.2923+04
1 3/3 1103/403	(0.85)R	4934702	.2019+02	1-5/5	.1183+04	1380+04	3622+04 (0.85)R	.1357+04	.2083+03
01139+04	2012.25			0	3569+03				
1-5.C5604+03 1-5.S2602+02	.2919+03 .1132+03 .1518+031530+03	2633+02 4089+02	1220+02 .1502+02	1-5,0	5411+03 .5298+03	·1345+04 -·7146+03	1049+04 2419+04	.6772+03 .9469+03	.2098+04 .2361+03
			11302102	1 3/3	132 30103	-1/140403	2419704	.4404403	.2361+03
N,C OR S	ADVANCE RATIO, MU = 0.4			N.C OR		ADVANCE I	RATIO, MU = 1.0		
	(0.21)R				-		(0.21)R		
0 .2433+02	HEED-07 0016-07			0	1912+04				
1-5,C8035+03 1-5,S .1217+04	.4552+032910+03 5463+036780+02	.3363+02	5420+02 1410+03	1-5.C	2494+04	.3309+03 2345+04	2501+04 .1129+04	2402+04	1985+04
	(0.35)R	.11- 405	-11410403	1-3/3	1175704	-12345704	(0.35)R	2247+03	.1891+04
0 .5973+02 1-5.C1790+04	-1090+043969+03	7770.01	4757+01	0	2927+04				
1-5.5 .1876+04	5599+033552+03	.7734+01 9956+02	1428+03	1-5,5	3662+04 .1764+04	.2495+03 3039+04	4009+04 .7713+03	4.2186+04 .4359+02	1928+04 .1798+04
	(0,45)R					-13039.04	(0.45)R	*4039402	.1/90+04
08614+02 1-5,C2375+04	·1528+043400+03	6120+02	.3467+02	1=5.0	3162+04 3813+04	•7491+02	4927+04		
1-5,5 .2008+04	3836+036486+03	2504+02	-,7720+02		.1309+04	3080+04		÷.1295+04 .6228+03	1004+04 .5442+03
04699+03	(0.55)R						(0.55)R	*0220700	13442403
04699+03 1-5,C2634+04	.1819+041476+03	1773+03	.4302+02	0 1-5.C	2867+04 32b3+04	1159+03	5637+04	-,2340+03	#20F.07
1-5,5 .1775+04	1139+039622+03	+.4531+01	.3711+02	1-5.5	.7334+03	2878+04	7620+03	.1486+04	.4385+03 1592+04
0 ~.1357+04	(0.75)R			0			(0.75)R		******
1-5,01627+04	.1421+04 .3722+03	3702+03	4705+02		109&+04 9741+03	2721+03	4854+04	.8738+03	.2468+04
1-5.5 .4395+03	.3232+031132+04	1520+03	.2434+03		.3060+02	1902+04	1422+04	.2472+04	4721+04
01034+04	(0.85)R				-,3596+03		(0.85)R		
1-5,07563+03	.7683+03 .3331+03	2665+03	<b></b> 5652+02	1-5,0	2064+03	1689+03	2758+04	.5952+03	.1733+04
1-5.5 .5510+01	-2600+037168+03	1441+03	.1863+03		2674+02	9394+03	8887+03	.1615+04	3266+04
N.C OR S	ADVANCE RATIO, MU = 0.5			N.C UR	s	AUVANCE I	RATIO, MU 🗖 1.4		
	(0.21)R				-		(0.21)R		
02733+03	(0.21/K			0	2840+04		(U.ZI)K		
1-5.09947+03	.4585+034840+03	2894+02	2242+03		4693+04	-1015+04	1595+04	2037+03	.1459+04
1-5.5 .1326+04	8612+03 .3875+02 (0.35)R	<b></b> 4497+03	3078+03	1-5,5	.2407+04	2828+04	.3557+04 (0.35)R	<b>1327+03</b>	.1801+04
05675+03				0	3670+04				
1-5,C2063+04 1-5,5 .2178+04	.1337+047644+03	÷.1915+02	1360+03		6459+04	7582+03		4266+03	9905+03
1-5/5 .21/8+04	1079+043617+03 (0.45)R	÷,2963+03	3622+03	1-5,5	.1974+04	2336+04	.3499+04 (0.45)R	.3183+03	.1278+04
04101+03				0	3525+04				
1-5:0 +.2696+04 1-5:5 .2456+04	.1994+047835+03 9656+038858+03	1102+03 6637+02	1950+01 2304+03		6379+04 .1052+04	.1711+03 1236+04		.1171+04 .1227+04	.8065+02 .1037+03
	(0.55)R	.003/702	. 2304703			1230404	(0.55)R	*1551704	* 1071 + 03
06856+03 1-5.C2935+04	.2463+045872+03	- 30/1/07	.1243+03	1-5 6	2858+04 5133+04	E124:07	- #33040"	1013.05	9201+03
1-5,5 .2333+04	7237+031554+04	3461+03 .1282+03	.1243+03 .6180+02		5133+04 .1962+03	5126+03 1720+03	-,4338+04 .2133+04	.1913+04 .2545+04	9201+03 1307+04
	(0.75)R		<b>-</b>				(0.75)R		
01304+04 1-5:C1757+04	.2003+04 .2022+03	8833+03	.1643+03	0	9161+03 1171+04	_ 1036100	- 3004+00	.2085+04	1615+04
1-5/5 .9123+03	2568+022247+04	.1251+03	.6975+03		2893+03	1074+04 .5065+03	3481+04 .1495+04	.2083+04 .3789+04	1615+04 2493+04
	(0.85)R	_					(0.85)R		
09564+03 1-5,08031+03	.1094+04 .2887+03	-,6660+03	.8788+02		2766+03 1191+03	6639+03	1874+04	.1199+04	9727+03
1-5,5 .2700+03	.9756+021504+04	.3378+02	.5540+03		1359+03	.2749+03	.8981+03	.2373+04	1547+04

#### (I) MP = 0.5 FP = 0.01 (FOR MU = 0.25,0.4.0.5) FP = 0.00447(1+MU)==2 (FOR MU = 8.7.1.0.1.4)

				77 - 0							
N.C OR S	S	ADVANCE RA	AT10, MU = 0.25			N.C OR	S	ADVANCE R	ATIO, MU = 0.7		
	-										
_			(0.21)R						(0.21)R		
0	.1655+03	.1574+03	- 1106103	±.1751+02	- 7001.01	0	6718+03				
1-5,6	5571+03 .6800+03	1794+03	1106+03 3381+02	1751+02 1356+01	7991+01 .5670-00	1-5.C	1398+04	3159+03	1884+04	+.5796+03	1122+03
1-212	.6800+03		3381+02 (0.35)R	1356+01	.36/0-00	1-5,S	.1292+04	1180+04	.6482+03	.6076+03	.4942+03
0	.1315+03		(U.35)K				0545.03		(0.35)R		
	1005+04	.2903+03	1470+03	<b>4.2762+02</b>	5023+01	. 0	9565+03	22/1.05	0.000		
1-5,5	.9417+03	2035+03	8982+02	.1822+01	9215-00	1-5,5	1984+04 .1806+04	2261+03 1617+04	-,2852+04 .5911+03	÷.7754+03 .9812+03	1235+03 .4233+03
	.,417700		(0.45)R	*********	>2.23-00	1-5/5	.1806+04		.5911+U3 (0.45)R	.4012+03	.4233+03
0	4873+02					0	1036+04		10.43/1		
	1217+04	.3641+03	1451+03	3369+02	1328+01		2147+04	2896+02	3260+04	£.7932+03	-, 9882+02
1-5.5	.9500+03	1720+03	1323+03	.2742+01	1522+01	1-5,5	1928+04	1693+04	3202+03	.1177+04	.1880+03
			(0.55)R						(0.55)R		
0	3366+03					0	1004+04				
	1234+04	3896+03	1216+03	3769+02	.1009+01	1-5.C	2071+04	•1957+03	3324+04	<b>7176+03</b>	5929+02
1-5,5	.8011+03	1175+03	1593+03	.6265-00	- <b>.8834-</b> 00	1-5.5	.1832+04	1574+04	2215+02	.1255+04	<b>98</b> 63+02
			(0.75)R						(0.75)R		
0 1-5,C	6490+03 6736+03	.2483+03	4482+02	<b>2944+02</b>	.1178+00	0	5861+03				
1-5,5	.2748+03	1782+02	1202+03	±.6076+01	.1821+01		1202+04	•3526+03	2122+04	-,3658+03	.4089+01
1-3/3	12/46703	-+1/62+02	(0.85)R	-,0076401	.1051401	1-5,5	.1034+04	8508+03	3667+03 (0.85)R	.8564+03	3564+03
0	4094+03		(0.03/K			0	2783+03		(U.85)K		
	2975+03	.1194+03	1591+02	-,1563+02	4450-00		5698+03	-2087+03	1039+04	4.1645+03	.8651+01
1-5.5	.8758+02	-2018-00	6117+02	£.4641+01	.1523+01	1-5,5	.4850+03	3922+03	2354+03	.4281+03	2210+03
• • • •			***************************************	*********	*******	1-3/3	.4030403	-13922103	-,2354+03	.4201403	-12210403
N.C OR	s	ADVANCE R	ATIO, MU = 0.4			N.C OR	ς.	ADVANCE B	ATIO, MU = 1.0		
	-							ADTAILEE I	M1107 HO - 1.0		
			(0.21)R						(0.21)R		
0	.3640+02					0	1469+04				
	8051+03	.2651+03	4246+03	1188+05	6269+02	1-5.C	2127+04	5944+03	2424+04	.3161+03	.3434+03
1-5,5	.1034+04	4831+03		.5934+01	·1973+02	1-5.S	.1166+04	1534+04	.2361+04	.1279+04	.2695+03
_	****		(0.35)R						(0.35)R		
1-5-6	5713+01 1441+04	.5840+03	6107+03,	<b>-</b> .1650+03	4725+02	0	2025+04				
1-5,C	.1520+04	6223+03	2623+03	.3594+02	4725+02 -4171+01		2797+04	8752+03	3678+04	.7993+03	.3354+03
-5/5	.1320+04		(0.45)R	.3394402	.4171401	1-5,5	.1431+04	1932+04	.3295+04	.2062+04	.6181+02
0	1520+03		(U.45/K			_			(0.45)R		
	1740+04	.7891+03	6437+03	<b>1933+03</b>	2104+02	0	2132+04	07/1.07			****
1-5,5	1594+04	5969+03	4357+03	.5242+02	7112+01	1-5,5	2813+04	9761+03 1856+04	4202+04	.1197+04	.2181+03
2 0.0	**********		(0.55)R	10212.02	********	1-5/5	.1334+04		.3509+04 (0.55)R	.2464+04	2377+03
0	3886+03					0	1986+04		(0.351K		
1-5,C	1763+04	.8842+03	~.5806+03	±.2206+03	.8489-00		2488+04	9668+03	4259+04	.1484+04	.6388+02
1-5.5	.1389+04	4825+03	5723+03	.5185+02	7665+01	1-5,5	.1066+04	1546+04	.3313+04	.2601+04	5346+03
			(0.75)R				, 2.11.10.104		(0.75)R	.2002.04	-,5540703
. 0	6265+03					0	1071+04				
1-5.C	9649+03	.5881+03	2597+03	<b></b> 1937+03	.8360+01	1-5.C	1197+04	5800+03	2652+04	.1185+04	1119+03
1-5,5	.5008+03	1583+03	4903+03	<b>~1238+02</b>	.1160+02	1-5,5	.3870+03	6395+03	.1828+04	.1719+04	6164+03
0			(0.85)R						(0.85)R		
	3892+03					0	<b></b> 4895+03				
1-5,5	4273+03	.2849+03 5067+02	1050+03	4.1080+03 .2956-01	.3250+01		5214+03	2757+03	1276+04	.6110+03	7753+02
1-5/5	.1635+03	5067702	2605+03	*5A2P=0I	.1078+02	1-5.5	.1431+03	2574+03	.8428+03	.8427+03	3409+03
N.C UR	5	ADVANCE R	RATIO, MU = 0.5			N.C JK	•	ADVIANCE			
		NOTATION IN	M1107 HO - 015			7-7-T-		ADVANCE	RATIO, MU = 1.4		
			(0.21)R				_		(0.21)R		
0	1687+03					0	2001+04				
1-5,C	9691+03	.2048+03	7695+03	2966+03	1445+03	1-5,C	3407+04	.1483+03	7740+03	.2726+04	.4009+03
1-5,5	.1175+04	7737+03		.7081+02	.1214+03	1-5.5	·1436+U4	1455+04		±.1370+02	9452+03
			(0.35)R						(0.35)R	-,10,0405	7432403
0	2575+03					0	2600+04				
	1693+04	•5889+03	1167+04	<b>2.3641+03</b>	1166+03	1-5.C	4321+04	•1726+03	1067+04	.4263+04	.3672+03
1-5,5	.1794+04	1086+04	2385+03	.1574+03	.6717+02	1-5.S	·1655+04	1486+04		,2544+03	1287+04
_			(0.45)R						(0.45)R	•	*********
0	3768+03					0	2564+04				
	2020+04 .1947+04	+8710+03	1292+04	3925+03	5538+02	1-5.0	4186+04	•1511+03	1122+04	.4971+04	.2087+03
1-5.5	.1947+04	1125+04	5324+03 (0.55)R	.2151+03	.4113+01	1-5.5	.1430+04	1065+04		.5297+03	1340+04
0	5469+03		10.351K			0	- 00"7.0"		(0.55)R		
	2030+04	.1032+04	1238+04	÷.4314+03	.5609+01		2247+04 3525+04	1007.0-	- 40-0-0	F	
1-5,5	.1777+04	~.9972+83		.2447+03	3464+02	1-5,5		-1097+03	1042+04	.5107+04	.1469+02
. 573	-1.11104		(0.75)R	. 2441103	3404402	1-5/5	.1015+04	4868+03	.5069+04 (0.75)R	.7563+03	1230+04
0	6409+03					0	1036+04		10./51K		
1-5.C	1101+04	.7340+03	6548+03	±.3903+03	.4589+02		1502+04	•2720+02	- 5520407	3100.00	
1-5.5	.7611+03	4305+03		.1689+03	1328+02	1-5,5	.2230+03	•2474+03	5520+03 .2609+04	.3198+04	1724+03
			(0.85)R			- 5/3		14714703	(0.85)R	,6665+03	6367+03
0	3803+03					0	4408+03		101001K		
	4664+03	.3629+03	2922+03	±.2223+03	.2641+02		6140+03	+6833+01	2492+03	.1531+04	1096+03
1-5,5	.2911+03	1709+03	4704+03	.8328+02	.1792+01	1-5.5	.4516+02	-2008+03	.1165+04	.3478+03	2849+03.
2 3,3											

## TABLE 4. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

				FF = 0.	100441111440144E	1FUR HO # #1	,,,,,,,,,,				
NeC OR S		ADVANCE F	RATIO, MU \$ 0.25			N,C OR	5	ADVANCE P	T.O & UM GOITA		
			(0.01R						(0.0)R		
٥	1093+03					0	9535+03				
1~5.C	.3981+03	3545+03		*.2189+02	.9549+01	1-5,C	.1113+04	1140+04	4997+03	*.5016+02	-,1824+03
1-5.5	.1345+04	1010+03		<b>1003+03</b>	6024+02	1-5,5	.5175+04	1577+04	.5534+03	.1372+03	1032+03
			(0.14)R			_			(0.14)R		
. 0	.2022+02		*****		- 3705.01		.3976+02				****
1-5,C	.2233+02	.1406+02		.2201+01	3304+01 .3681+01	1+5.C	.9725+02	.5135+02 2523+02	7828-00	.1342+02 2.1148+02	,2402+02 .1982+02
1-5,5	.7819+01	3757+01	(0.325)R	.4116+01	*3001+01	1-5,S	.1528+03		.8923+01 (0.325)R	-,1146702	.1702+02
0	.1362+03		10.5257K			0	.3232+03		(0.3237K		
1-5,C	.2422+02	.7625+02	.2181+02	.7510+01	2928+01	1-5,C	.7864+02	.3074+03	.9051+02	.1310+02	.6284+02
	1692+03	8776+01	.3364+02	.1796+02	.1080+02		5523+03	.2406+03	7963+02	4,3549+02	.3585+02
• • • •	• • • • • • • • • • • • • • • • • • • •		(0.55)R						(0,55)R	••••	
0	.3003+03					0	.5084+03				
1-5.C	.5052+02	.1138+03		.9125+01	.9739+01	1-5,C	1219+03	.4137+03	.2400+03	7464+01	8024-01
1-5.5	2872+03	.1699+02		.2502+02	.1204+02	1-5.5	8091+03	•3647+03	1704+03	4.5118+01	1813+02
_			(0.75)R			10	.3531+03		(0.75)R		
	.2567+03 .3560+02	.1105+03	.4617+02	.6309+01	.1784+02	1-5,C	.6795+02	.3557+03	.4085+03	.2911+02	9473+02
1-5,C 1-5,S	2362+03	.2161+01		.3380+02	.2119+02		5426+03	.2442+03	2362+03	.3709+02	-,6003+02
1-3/3	-12302703	.2101.01	(0.85)R	.5000102		, 5.0			(0.85)R	*0.07.02	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
G	.1402+03		10100711			a	.1709+03				
1-5,C	.1542+02	.7339+02	.3496+02	.3333+01	.1358+02	1-5,C	.2354+02	.2187+03	.3223+03 1754+03	.3661+02	8761+02
	1321+03	5704+01	.4712+02	,2705+02	.1902+02	1-5/5	- 2591+03	.1149+03	1754+03	.3493+02	-,4710+02
N.C OH S		ADVANCE !	RATIO, MU = 0.4			N.C OR		ADVANCE F	RATIO, MU = 1.0		
	•						-				
_	4005.03		(0.0)R				1050.00		(0.0)R		
0	1805+03 .7071+03	~.8945+03	2168+02	.5100+01	.2150+02	0 1-5,C	1050+04 .1253+04	1383+04	5578+03	÷.1246+03	9385+02
1-5,C 1-5,S	.2229+04	7914+03		4.8351+02	6435+02	1-5,5	.8671+04	2837+04	•1735+04	.3641+03	.2730+03
1-3/3	.222 7704	-11724103	(0.14)R		*5405402	1 3/3	.0011104	-12001104	(0.14)R	.5041.00	12/00/00
0	.3771+02					0	.7959+02		10021111		
1-5.C	4104+02	.3040+02	.1415+01	.2595+01	4530+01	1-5.C	.1964+03	-6767+02	2818+02	.3376+02	.1369+02
1-5.5	.1438+02	1125+02	5087+01	.1154+01	.2992+01	1-5,5	.5131+03	8382+02		4.1523+02	1303+02
			(0.325)R						(0.325)R		
0	.1873+03					0	.4902+03				
1-5.C	.4192+02	-1740+03		.8409-00	7457+01	1-5.C	1928+03	·4710+03	.1198+03	.5810+02	.3692+02
1-5,5	~,2767+03	.8208+02	.1476+02 (0.55)R	.7132+01	.6106+01	1-5.5	9238+03	-5377+03	3023+03 (0.55)R	<del>-</del> ,9647+02	<b>9</b> 916+02
9	.3658+03		(U.55)K			0	.6513+03		(0.551K		
1-5,C	.8202+02	.2501+03	.2367+02	1055+02	2394+01	1-5,C	.2212+03	.6017+03	.4122+03	2298+02	.1225+02
1-5,5	4690+03	.1429+03		.3285+01	->2918+01		1217+04	.7173+03	5670+03	4317+02	2506+02
2 0.0		*******	(0.75)R	*******	12720.02				(0.75)R	•	•
0	.3015+02					0	.4066+03				
1-5.C	.5803+02	.2404+03		1832+02	5376+01	1-5,C	.7755+02	.5128+03	.6445+03	5453+02	-,5797+01
1-5,5	~.3813+03	.1154+03		.5378+01	.1052+01	1-5.5	7024+03	4172+03	-,6380+03	,4408+02	.1787+03
			(0.85)R			_			(0.85)R		
. 0	1629+03		.5033+0;			.0	.1900+03 .8890+01	.3111+03	4420.03		5437+01
	.2588+02 ~.2109+03	.1600+03 .6285+02		1411+02 .5658+01	6262+01 .4256+01	1-5.0	3037+03	•1801+03	.4679+03 4230+03	3473+02 .4688+02	.1693+03
				.3036401	14230401					.4000402	*1093403
N.C OR S		ADVANCE	RATIO, MU = 0.5			N,C OR		ADVANCE	RATIO, MU = 1.4		
	•		40.010				•-				
'n	4754+03		(0.0)R			n	.6805+03		(0.0)R		
1-5.C	.5501+03	9466+03	1095+03	.1208+03	1649+02	1-5.C	.4521+04	1016+04	•7109+03	4.3457+03	.5849+03
1-5/5	.3187+04	1316+04		.4096+02	1233+03	1-5.5	.1594+05	5236+04	.3899+04	.4380+03	7705+02
1-3/3	*3101704	-,1310,04	(0.14)R	14090402	-11233700	1 3.3	*1374743	-45250104	(0.14)R	.4380+03	-11103102
0	.8170+02		,			0	.4196+03				
1-5,C	.4774+02	.4889+02	3466+01	*.9792+01	.2975+01	1-5.C	.8712+03	+1967+03	2101+02	.3673+02	1009+03
1-5.5	1796+02	.9320-00	.1144+01	<b>*.</b> 1333+02	.1212+02	1-5.5	.1672+04	2625+03		2892+02	.3400+02
			(0.325)R						(0.325)R		
0	.2543+03					0	.7359+03	(00a:	****		
1-5.C	.5592+02	-2149+03		3061+02	.4597+01	1-5,0	.4782+03	•6992+03		.1074+03	3115+03
1-5.5	3876+03	.1481+03	2819+01 (0.55)R	<b></b> 2795+02	.2802+02	1-5,5	1526+04	•1215+04	7904+03 (0.55)R	-,1610+03	.3890+02
a	.3683+03		10.331K			0	.7496+03		(0.33/K		
1-5.C	.7881+02	.2725+03	.8449+02	1956+02	9618+01	1-5,C	.3826+03	.8484+03	.2647+03	5023+02	.1509+03
	5217+03	-2123+03		6744+01	1480+02	1-5,5	1891+04	.1432+04		-,1848+02	7855+02
			(0.75)R			- 3,5			(0.75)R		
0	.3580+03					0	.3528+03				
1-5•C	.7366+02	-2193+03		.1026+02	2860+02	1-5,C	.1287+03	.8298+03		-,1154+03	.7033+03
1-5.5	4618+03	.2044+03		.3335+02	7987+02	1-5,5	-,9225+03	•6905+03		.1586+03	1071+03
_			(0.85)A			_			(0.85)R		
0 1-5,C	.2396+03 .4839+02	.1321+03	.1211+03	.1630+02	2534+02	0 1-5,C	.1364+03 .3091+02	+5288+03	.4259+03	4.7368+02	.5444+03
	2944+03	.1362+03		.3518+02	2534+02 7456+02		3530+03	•5288+03 •2603+03		7368+02 -1307+03	6428+02
1-3/3		11302703	-43709702	10010+05	** 1 43040E	1 3/3	55550+05	• 2003+03		*1301403	

## TABLE 4. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (8) MP = 0.1 FP = 0.0025 (FOR MU = 0.25.0.4.0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

		., - •			_				
N.C OR 5	ADVANCE RATIO, MU = 0.25			N.C OR		ADVANCE F	RATIO, MU = 0.7		
	(0.0)R				-		(0.0)R		
0 -,1222+03	***************************************			0	6512+03				
1-5,C ,3265+03	1985+031371+03	±.1907+02	1214+02	1-5,C	.9602+03	8522+03	.2397+02	.8626+02	.4226+02
1-5.S .9010+03	7576+021409+03	±.6853+02	4986+02	1-5,5	.3308+04	9488+03	.8011+03	9258+02	.7807+02
1 5/5 1/5/5/55	(0.14)R	10-00-02			•		(0.14)R	,,,,,,,,,	***********
0 ,3784+02	10,24111			0	.1229+02				
1-5.C .5573+02	3904+016289+01	a.4941-00	4512-0Q	1-5.C	.2108+03	2851+02	7344+01	.4550+0	4620+01
1-5,5 .6368+02	7416+018640+01	3371+01	4146-0d	1-5.5	.3777+03	9551+02		.7610-0u	-,7607+01
1 3/3 10350.00	(0.325)R	40014102			• • • • • • • • • • • • • • • • • • • •	********	(0.325)R	*	- 47001702
0 .1507+03	(010207.1			Q	.3100+03				
1-5,C .2549+02	.6099+02 .3613+02	.6340+01	.3689+01	1-5,C	.1031+03	.2943+03	3623+01	4.2612+02	-,19 <del>98</del> +02
1-5.51605+03	.7134+01 .3082+02	.1635+02	.1417+02		4831+03	.1659+03		4,3553+02	-,3771+02
2 0.0	(0.55)R				•		(0,55)R	,,,,,,,,,,	101.2.02
0 .2524+03	10,007			0	.4237+03				
1-5.C .3376+02	·9032+02	.1161+02	.7026+01	1-5.C	.1096+03	.4019+03	.7030+02	4.3710+02	<b>.1799+01</b>
1-5.52442+03	.7883+01 .5374+02	2576+01	.1295+02		6774+03	.2177+03	3756+03	4,3309+02	-,7124+01
2 0/0 (2/12/00	(0.75)R						(0.75)R	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	V.42
0 .2410+03				0	.3164+03				
1-5.C .2981+02	.7607+02 .6162+02	.1198+02	.7213+01	1-5.C	.7685+02	.2957+03	.1139+03	4,2829+02	.2501+02
1-5.5 -,2068+03	.3813+01 .5153+02	.2281+02	.4201+01	1-5.5	4796+03	.1448+03	3671+03	1396+02	.3076+02
	(0.85)R		- · <del>-</del>				(0.85)R	•••••	********
0 .1456+03	*********			0	.1707+03				
1-5.C .1757+02	·4384+02 ·3740+02	.7379+01	.4459+01	1-5.C	.4060+02	.1584+03	.7592+02	÷,1539+02	.1906+02
1-5,51194+03	.1531+01 .3115+02	.1340+02	.8604-00	1-5.5	2520+03	.7374+02	-,2183+03	4998+01	.2508+02
• • • • • • • • • • • • • • • • • • • •								•	
N.C OR S	ADVANCE RATIO, MU = 0.4			N.C OR	S	ADVA:ICE I	RATIO, MU = 1.0		
					_				
	(0.0)R						(0.0)R		
01672+03				0	-,6351+03				
1-5.C .5208+03	5886+031556+02	.7024+01	1366+02	1-5.C	.1460+04	1197+04	.8873+03	.2107+03	.5776+02
1-5.5 .1499+04	4473+033386+02	4.8289+02	5148+02	1-5.5	.5193+04	1548+04	.1546+04	.4972+02	7314+02
	(0.14)R		•				(0.14)R	•	
0 .5111+02				0	.4710+02				
1-5,6 .9318+02	2098+021643+01	.1047+01	.3050+00	1-5,C	.4250+03	6960+02		.2588+02	1447+02
1-5:5 .1066+03	4246+027567+01	.7263+01	~.485 <b>8</b> +01	1-5.5	.8223+03	2050+03	.2002+03	4.1075+02	.2124+01
	(0.325)R						(0.325)R		•
0 .1968+03				0	.4355+03				
1-5,6 .5111+02	•1557+03 •5863+01	.1946+01	.2482+01	1-5.C	.2363+03	.4616+03		<b>-</b> .6784+02	4145+02
1-5.5 -,2655+03	.5158+028211+01	.1102+02	.5687+01	1-5,5	7410+03	.3002+03		4.4176+02	.2002+02
•	(0.55)R						(0.55)R		
0 .3074+03				0	.5306+03				
1-5,0 .6760+02	·2277+03 ·2259+02	.9434+01	6387+0 <sub>-</sub>	1-5.C	.2121+03	.609uvu	2812+03	<b>4.1463+0?</b>	.1510+02
1-5.54042+03	.7915+021471+02	.1654+02	.7745+01	1-5,5	1019+04	.3547+03		4.2420+02	4130+02
	(0.75)R						(0.75)R		•
0 .2775+03				0	.3326+03				
1-5,0 .5808+02	.1884+03 .3060+02	.1338+02	-,1380+02	1-5.C	.1195+03	.4056+03	1520+03	A.1404+03	.6261+02
1-5,5 ~.3423+03	.6576+021519+0?	.1357+02	.5585+01	1-5,5	6240+03	.1838+03		.6175+01	8035+02
	(0.85)R						(0.85)R		
0 .1644+03				0	,1634+03				
1-5,0 .3386+02	.1078+03 .2033+02	~.8973+01	9912+01	1-5.C	.5610+02	.2050+03	6844+02	-,8107+02	.4399+02
1-5,51 76+03	.3764+029420+01	,7731+01	.2995+01	1-5,5	-,3011+03	.8026+02	3864+03	.8341+01	5305+02
N.C OR S	ADVANCE RATIO: MU & 0.5			N.C OR	c	ADVANCE D	RATIO: MU S 1.4		
	MUNNICE KALLOT MU & 0.5					NOTATION !	CR1101 HO \$ 214		
	(0.0)R						(0.0)R		
03077+03	10.016			0	.7674+03				
1-5,C ,4099+03	6837+038544+02	.7628+02	7484+02	1-5.C	.5048+04	1041+04	.3473+04	.8004+02	1893+03
1-5/5 .2043+04	→.7356+031327+02	0.4461+02	1100+02	1-5.5	8507+04	2486+04		a.1512+03	5706+02
2-373 .2043404	(0.14)R	~*4407405	~*110n+0\$	. 573			(0.14)R	-11215493	- 631ABARE
0 .5025+02	10.17/8			0	.5244+03		141414		
1-5,C .8269+02	1033+026604+u1	.1321+01	.1023+02	1-5,c	1636+04	.1833+02	:5355+03	.2539+02	~,3070+02
1-5,5 .1471+03	6403+026604+01 6403+02 -5238-00	#.7546+01	6801+01	1-5,5	1853+04	4098+03	.2561+03	*4518+02	:3845+82
1-3/2 114/1403	(0.325)R			- 0.3			(0.325)R		,,,,,,,,,,
0 .2380+03	10102378			0	.6867+03				
1-5,6 .6239+02	.2062+03 .2471+02	*.2285+02	.3137+02	1-5,0	.5666+03	.6743+03	9997+03	4.5812+02	.3713+02
1-5,53455+03	.9713+025301+01	4.1667+01	1005+02	1-5,5	1012+04	5710+03		.1506+02	.4352+02
7-012 -10400403	.9713+025501+01 (0.55)R	100 (+01	-*1003+05	2 0,3		-2110403	(0.55)R	. 1300405	*******
0 .3471+03	(0)30/10			0	.6432+03		-1001K		
1-5,C .8008+02	.2690+03 .7087+02	3063+02	2057+02	1-5.C	.2792+03	.7796+03	-,1501+04	4,2561+03	,2316+02
1-5/54917+03	.1403+034292+02	.3115+01	3970+01		1487+04	.6756+03	4720+03	.2211+07	1708+03
	(0.75)R	*3113401	~. J7 ( WTU)	. 013		10150103	(0.75)R	**************************************	~ * Y LABAR3
0 ,2934+03	(0.151K			0	.3081+03				
1-5,C .6423+02	·1962+03 ·8808+02	.2314+02	7265+02	1-5,C	.8929+02	.4303+03	1022+0*	1,2882+03	7602+01
1-5,53871+03	·1105+036561+02	.6686+01	7265+02 -5209+01		8001+03	.3235+03		.2731+03	*: 2654+03
2 3.2 - 10071403	(0.85)R	.0~00701		2 373			(0.85)R	4E131403	. * ********
0 .1694+03	10100111			0	.1300+03		1019318		
1-5,C ,3638+02	.1060+03 .57/+02	4.1269+02	5474+02	1-5+C	2824+02	966+03	5147+03	4,1689+03	8728+01
1-5,52167+03	·6182+024467+02	.4790+01	4985+01		~.3557+03	.1342+03	1935+03	.1644+03	~.1646+03
	77707.02	17.70.01	1 - 100+01	- 5.5		***************************************	-17,00.00	* 7044193	

## TABLE 4. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (C) MP = 0.1 FP = 0.01 (FOR MU = 8.25.0.4.0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 8.7.1.0.1.4)

		FP = U	.00447(1+MQ)##2	(FUR MU = 8.	1111011-41				
N.C OR S	ADVANCE RATIO, MU = 0.25			N.C OR		ADVANCE F	RATIO, HU & 0.7		
	(0,0)R				•		10.0)R		
02467+02					2335+03				
1-5,C .2303+03	9699+026418+02	1832+02	9889+01	1-5.C	.3481+03	3670+03	.1647+03	<b>2.29</b> 06+02	5865+02
1-5.5 .3673+03	2624+02 .5846+02	8192+02	3871+02	1-5,5	1129+04	3343+03		<b>3.2461+03</b>	7513+02
	(0.14)R						(0.14)R		
0 .4357+02 1-5,C .9639+02	1556+021306+02	3415+01	2020+01	0	.1667+02				
1-5,C .9639+02 1-5,S .7966+02	1556+021306+02 1105+02 .1015+02	1704+02	8163+01	1-5.0	.1672+03 .2d56+03	6172+02 1234+03	.3590+02 2783+02	*.1157+02 *.6609+02	1678+02 2643+02
1-913 1/466+05	(0.325)R	-,1704702	-,0103401	1-5,5	.2030+03	1234+03	(0.325)R	0009702	-,2013142
0 .1316+03	101023711			0	.2321+03		10132371		
1-5,C .4544+02	.3990+02 .2222+02	.6459+01	.3049+01	1-5,C	.886b+02	.1575+03	5407+82	7438-00	.1082+02
1-5.51032+03	6324+012324+02	.2605+02	.1209+02	1-5.5	2015+03	6911+01		.6520+02	.6790+01
	(0.55)R						(0.55)R		
0 .1898+03	.5991+02 .4020+02	.1008+02	+4845+01	0 1~5,C	.3003+03 .5697+02	.2112+03	8025+02	.6067+01	.2029+02
1-5,C .3260+02 1-5,51695+03	7603+013758+02	.4486+02	.2103+02		4470+03	.2112+03		.1289+03	.2783+02
1 3/3 - 11//35+05	(0.75)R	, 4 - 00 - 02	***************************************	1 3,3		12170.02	(0.75)R	11207.00	
0 .1346+03				0	.1303+03				
1-5.0 .1866+02	.3899+02 .2957+02	.6640+01	.3176+01		.2705+02	.1184+03		.5931+01	.1295+02
1-5.51126+03	6051+012590+02	,3153+02	.1486+02	1-5,5	-,2653+03	•1047+02		.9221+02	.2367+02
0 .6423+02	(0.85)R			0	.8506+02		(0.85)R		
1-5.0 .8934+01	.1904+02 .1511+02	.3257+01	.1554+01		.1187+02	.5394+02	-,2213+02	.3221+01	.6205+01
1-5.55534+02	3213+011294+02	1584+02	.7478+01		1235+03	•3971+01	1002+02	4627+02	.1248+02
		7	***************************************				*******		
N,C UR S	ADVANCE RATIO, MU = 0.4			N.C OR		ADVANCE F	RATIO, MU = 1.0		
					-				
05690+02	(0.0)R				35 #4+03		(0.0)R		
1-5.C .3753+03	2349+037182+01	÷.2970+02	207u+02	1-5-0	.3130+03	4531+03	.3094+03	2052+03	8326+02
1-5.5 .6179+03	1462+031457+02	1096+03	5449+02	1-5,5	.1571+04	4728+03	2945+03	±.2830+03	1019-01
	(0.14)R	•					(0.14)R	• • • • • • • • • • • • • • • • • • • •	
0 .4972+02				0	9247+01				
1-5.0 1553+03	4275+023093+01 5089+021050+02	7368+01	6225+01 1454+02		.1715+03	8609+02	,7896+02	5666+02	2444+02
1-5.5 .1353+03	5089+021050+02 (0.325)R	2648+02	1454+02	1-5,5	.45.35+03	1840+03	7868+02 (0.325)R	~.8408+02	1030+02
0 .1692+03	10.32371			0	.2916+03		(0.3231K		
1-5,C .6455+02	.8392+02 .2057-00	.5838+01	·1799+01		.9648+02	.1976+03	9712+02	.6534+02	.2051+02
1-5.51713+03	5819+011407+02	.2600+02	.1009+02	1-5.5	3655+03	.5524+01	.7886+02	.7919+02	2281+02
	(0.55)R						(0.55)R		• •
0 .2341+03	1070107	.9777+01	h/ 10 - 01	1-5 5	.3650+03 .5006+02	0561.07	- 1004107	1005.03	*****
1-5.C .4674+02 1-5.52842+03	.1274+03 .5514+01 4914+011805+02	.4854+02	.4618+01 .2159+02	1-5,C 1-5,S	56.45+03	.2561+03 .5965+02	1486+03 .1123+03	.1245+03 .1646+03	.3709+02 2574+02
1-3/3 -12042403	(0.75)R	. 1031102	*2137702	. 3,3	. 10.15.05	13703102	(0.75)R	.1040100	-16314706
0 .1596+03				0	.2015+03				
1-5,6 .2536+02	.6236+01	.6128+01	.3247+01	1-5.C	.1612+02	.1319+03	8477+02	.8514+02	.2315+02
1-5/51/98+03	.2613+011255+02 (0.85)R	.3463+02	.1618+02	1-5.5	3132+03	.3151+02	.5628+02	.1165+03	1450+02
0 .7974+02	10.8578			120	.9115+02		(0.85)R		
1-5.0 .1226+02	.3989+02 .3562+01	.2933+01	.1618+01		.551b+01	.5739+02	3863+02	.4178+02	.1095+02
1-5.59351+02	.1009+016332+01	1747+02	.8294+01		1414+03	.1326+02	.2396+02	.5778+02	6665+01
•	_	-						•••••	***************************************
N.C UR S	ADVANCE RATIO: MU = 0.5			N.C OR S		ADVANCE F	RATIO, MU = 1,4		
					-				
01265+03	(0•ů)R			0	6044+03		(0.0)R		
1-5.0 .3042+03	2926+039171+01	.3687+02	1603+02		45co+03	6166+03	.3063+03	÷.4103+03	.1631+01
1-5.5 .(691+03	2250+03 .3403+02	1437+03	5291+02	1-5,5	2273+04	4858+03		.2333+03	.1647+03
	(0.14)R	•- •-					(0.14)R		
0 •3746+02				. 0	- 9443+01	_			
1-5.0 .1357+03	4233+022832+01	3357+01	4995+01	1~5,C 1~5,S	.244403	1279+03 1847+03	9265+02	1163+03	5793-00
1-5.5 .1978+03	7528+02 .2731+01 (0.325)R	4.3481+02	1759+02	1-5/5	.71.30+93		6875+02 (0.325)R	.5750+02	.4015+02
0 •1917+03	(0.32374			0	.3471+03		101565711		
1-5,6 .7527+02	.1246+03 .4667+01	±.2020+02	1295-00		.2112+03	.2933+03	7412+02	.1492+03	6561+01
1-5.52155+03	2575+012780+02	.3507+02	.4976+01	1-5,5	4226+03	•4366+02	.1450+03	F.9006+02	-,7428+02
	(0.55)R						(0.55)R		
0 .2530+03 1=5.0 .6012+02	·1697+03 ·1690+02	2658+02	-,9790-00	0 1-5,C	.4043+03 .1331+03	.3724+03	1038+03	.2705+03	1626+02
1-5.53069+03	.1356+025639+02	6773+02	9790-00 -2327+02		-,7430+03	•1021+03		1282+83	1249+03
A:313 -13:09103	(0.75)R	.0173702	16361706	* 5/3			(0.75)R		11647703
0 .1636+03				0	.2445+03				
1-5,C .3459+02	.1009+03 .1681+02	1578+02	1951+01		.52 -1+02	.1889+03	4510+02	.1749+03	1379+02
1-5.522.34+03	.6672+014691+02	.4968+02	.2210+02	1-5.5	3831+03	.4800+02		<b>2.</b> 6796+02	7938+02
02/65+02	(0.85)R			0	0.10 5 1 0 2		(0.85)R		
0 .0203+02 1-5:C .1647+02	.4745+02 .9361+01	£.7422+01	-,1228+01		.8345+02 .2043+02	.8133+02	1749+02	.8364+02	7202+01
1-5.51031+03	.2616+012496+02	.2532+02	+1213+02		1642+03	.1919+02	.3626+02	2986+02	3778+02
/	· ·- ·- ·- ·-	,							• • • • • • •

## TABLE 4. CULLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

### (D) MP = 0.3 FP = 0.001 (FOR MU = 0.25,0.4,0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		FF = 0.00	0441(I1MO)++E 1						
N.C OR S	ADVANCE RATIO, MU = 0.25			N+C OR S		ADVANCE R	ATIO, MU = 0.7		
	(0.0)R						(0.0)R		
01944+03	(0.07K			0	.3426+03		(U.U/K		
1-5.C .4331+03	3671+031343+03	£.2285+02	5740+01		4245+04	.1565+04	7511+03	6961+03	5470+03
1-5.5 .5223+04	1216+04 .1331+03	.3700+01	.5735+01	1-5.5	.2001+05	8876+04		.1799+03	.4845+03
7750.00	(0.14)R						(0.14)R		
0 .7354+02 1-5,C .3750+02	.4199+02 .8510-00	.4259+01	.1609+01		.3765+03	.2919+03	3338+02	.1631+03	.6676+02
1-5.5 .8309+02	.2707+019149+01	1009+01	5018-00		.6991+03	6737+02		.2546+02	2862+02
	(0.325)R						(0.325)R	•=	·
0 .4360+03		.5212+01	.2169+01	0	.1033+04				
1-5,C .1015+03 1-5,S4760+03	.9542+02 .2173+02 .1771+033101+02	.1074+01	8816-00		.5957+03 1607+04	.2231+03 .1393+04	.1498+03 3343+03	.2700+03 .1132+02	.2201+03 1608+03
1-9134160403	(0.55)R	.1014.01	***************************************	1-313	-11001704	*1373704	(0.55)R	,1132702	- ( 1000143
0 .9414+03				0	.1453+04				
1-5.0 .2156+03	.5510+02 .5796+02	6359-00	1718+01	1-5.C	.6999+03	.7035+02	.7635+03	6716+02	.3912+02
1-5.57824+03	.2829+031774+02 (0.75)R	3272+01	2936-01	1-5.5 -	1995+04	.1800+04	3644+03 (0.75)R	<b></b> 7762+02	2555+02
0 .7747+03	(U.15/K			0	.8186+03		10.151K		
1-5.C .1589+03	·4418+02 ·9722+02	.8897+01	3697+01		2566+03	.3247+03	.1453+04	1873+03	3971+03
1-5.56167+03	.2103+03 .1932+02	1012+02	7863-00	1-5:S -	1106+04	.9875+03		1882+03	.4098+03
0 .4077+03	(0.85)R			0	3005.03		(0.85)R		
0 .4077+03 1-5.C .7305+02	.3804+02 .7947+02	.1150+02	2646+01		.3085+03	.3443+03	.1160+04	1128+03	3951+03
1-5.53330+03	.1073+03 .2529+02	9168+01	1059+01		4413+03	.3760+03	5727+02	±.1555+03	.4123+03
N.C UR S	ADVANCE RATIO, MU = 0.4			N.C OR S		ADVANCE R	ATIO, MU = 1.0		
	(0.0)R						(0.0)R		
02305+03	(U.U)K			0	.5309+04		(0.0)8		
1-5.0 .1699+04	5710+035321+03	1851+03	1351+03		.8671+04	.5710+04	.1551+04	1020+04	.9788+03
1-5.5 .9507+04	3515+04 .5367+03	÷.2645+02	.6429+01	1-5·S	.3564+05	1442+05	.5073+04	.5613+03	.2389+04
	(0.14)R			_			(0.14)R		
0 .1427+03 1-5,C .1284+03	.1063+03 .4435+01	.3279+02	.2100+02	0 1 <del>-</del> 5•C	.1184+04 .1435+04	.8180+03	1915+02	.3145+03	1672+03
1-5.5 .1718+03	.3768+013008+02	9504+01	8831-00	1-5.5	.2342+04	2163+03	.5319+02	.5251+02	1690+03
	(0.325)R					1	(0.325)R	*********	
0 .6075+03		. = =		0	.1489+04				
1-5.C .2155+03 1-5.57748+03	.2162+03 .9071+02 .4934+031190+03	.4799+02 .2002+02	.4515+02 .1346+01		1109+04	.1627+02	1603+03	.4937+03	3791+03
1-5/5//40+03	(0.55)R	.2002702	*1340401	1-5/5	2761+04	.2829+04	1007+04 (0.55)R	1368+03	~.8895+03
0 .1140+04	10.5571			0	.1430+04				
1-5.0 .3993+03	.1437+03 .2483+03	1280+01	3008+01	1-5.C	.6623+03	4696+03	.7102+03	2099+03	.2731+03
1-5,51245+04	.7764+038893+02	1117+02	.4994+01	1-5.5	2950+04	.2945+04	9379+03	±.1507+03	6556+02
0 .6724+03	(0.75)R			a	.5065+03		(0.75)R		
1-5,C .2702+03	.1539+03 .4224+03	.3154+02	7530+02		9057+02	.3746+03	.1554+04	3458+03	.9215+03
1-5.59908+03	.5656+03 .4201+02	7550+02	3288+01	1-5.5	1261+04	.1171+04	2442+03	2863+03	.1717+04
	(0.85)R						(0.85)R		
0 .4374+03 1=5:C .1145+03	.1353+03 .3465+03	.4675+02	7261+02	. 0	.9867+02				
1-5.C .1145+03 1-5.55440+03	.2833+03 .7339+02	7357+02	6343+01	1-5/6	2119+03 3903+03	.5605+03 .3046+03	.1182+04 .1207+02	+,1751+03 -3209+03	.7225+03 .1562+04
		*********						.3209703	.1302704
N.C OR S	ADVANCE RATIO, MU = 0.5			N,C OR S		ADVANCE !	RATIO, MU = 1.4		
	(0.0)R						(0.0)8		
03796+03				0	.2359+05				
1-5.C .2219+04	.1739+039115+03	3077+03	2515+03		.2707+05	.1194+05		<b>÷.</b> 3286+04	.5199+04
1-5,5 .1306+05	5391+04 .4944+03 (0.14)R	.6790+02	1603+03	1-5,5	·6295+05	2356+05		<b>8222+03</b>	.2539+03
0 .1900+03	(U-14/K			0	.4413+84		(0.14)R		
1-5,C .1926+03	.1559+03 .9801+01	.7071+02	.3548+02	1-5,c	.4592+04	.2536+04	.9201+03	.5935+03	7777+03
1-5,5 .2329+03	.1826+022641+02	.7984+01	.3071+02	1-5.5	.6B16+04	6969+03	.2519+03	4.8631-00	.6090+03
	(0.325)R			_			(0.325)R	/*	
0 .7468+03 1-5,C .3226+03	.2263+03 ,1529+03	.8396+02	.8730+02	1-5,C	.1819+04 .4282+03	E457	450010		
1-5,5 -,1022+04	.7622+031000+03	1093+01 1093+01	.5579+02		4564+04	.5156+03 .5866+04		.1283+04 4.4785+02	2314+04 .3462+03
	(0.55)R	,		1-513	27304704	. 2000+04	(0.55)R		.3782103
0 .1280+94				0	.5257+03				
1-5.0 .5185+03	.8513+02 .4531+03	±.3491+02	.6584+01		1682+04	8234+03		.1328+03	.9328+03
1-5.51500+04	.1121+044901+02 (0.75)R	<b>4,2605+02</b>	1511+02	1-5,5	4104+04	.5697+04	.9150+03	.1252+04	8214+03
0 .8522+03	(0.1318			'n	5803+03		(0.75)R		
1-5.0 .2866+03	.4025+02 .8458+03	.6079+02	1544+03		1439+04	.5775+03	.8207+02	.5519+03	.3961+04
1-5.51010+04	.7202+03 .8938+02	4.3225+02	9057+02	1-5,5	9199+03	.2289+04	.2738+04	3802+04	2742+03
	(0.85)R						(0.85)R		
0 .3631+03 1-5.C .8611+02	.4500+02 .7136+03	.1074+03	1577+03		5245+03 6810+03	0574	## PT - C =		
1-5,54692+03	.3121+03 .1071+03	+.2096+02	8020+02		6810+03 .3930+02	.8576+03 .7421+03		.5993+03 .2979+04	.2971+04
_ 0/0 170/2700			******	1.013	.0730702	*********	*********	,27/7404	.8177+02

### TABLE 4. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

N,C OR		ADVANCE I	RATIO, MU = 0.25			N+C OR		ADVANCE F	RATIO, MU = 0.7		
			(0.0)R						(0.0)R		
- 0	2087+03					0	-,1249+03				
1-5.C	.3869+03	3852+03	2226+03	4,2963+02	.5402+01	1-5.C	.3182+04	.1527+03	- 1667+03	.2090+03	.3159+03
1-5.5	.3473+04	6728+03		9466+02	6698+02	1-5.5	.1271+05	5679+04		5029+03	4595+03
		***************************************	(0.14)R	.,,,,,,,,	***************************************				(0.14)R	10027.00	140,0400
0	.1393+03		1012471			n	.4037+03		10.1471		
1-5,C	.1078+03	.7865+01	-,6217+01	.3422+01	.5127+01	1-5,C	8250+03	·1913+03	6754+02	.4916+02	3451+02
1-5.5	.3133+03	3899+02	.8971-00	.1224+01	.2508+01	1-5,5	.1648+04	5110+03		.2641+02	2383+02
			(0.325)R			_			(0.325)R		
0	.4579+03					. 0	.1013+04				
1-5.C	.1409+03	.1503+03	.7593+02	.2612+02	.1260+02	1-5.C	.6174+03	.4008+03	•6667+02	.1387+01	1352+03
1-5.5	4441+03	.1369+03		.3684+02	.2903+02	1-5.S	1325+04	.1102+04	4763+03	±.1457+03	1798+03
			(0.55)R						(0.55)R		
0	.7525+03					0	.1244+04				
1-5.C	.2139+03	.1986+03	.1502+03	.4343+02	.2272+02	1-5.C	.6202+03	•5163+03	.5840+03	-,9312+02	.7554+02
1-5.5	6832+03	.1920+03	.2913+02	.5394+02	.3864+02	1-5.5	1758+04	•1325+04	8106+03	1864+03	1489+02
			(0.75)R		***************************************				(0.75)R	•	
0	.7103+03				1	0	.8489+03				
1-5,C	.1942+03	.1484+03	.1581+03	.4114+02	.2304+02	1-5,C	.3595+03	.3772+03	.8361+03	÷.1430+03	.2685+03
	5734+03	.1502+03	.4139+02	.4521+02	.2926+02	1-5.5	1095+04	.7835+03		÷.1254+03	.1780+03
		***************************************	(0.85)R	*******	12750.00				(0.85)R	**********	***************************************
O	.4274+03		10105711			0	.4397+03				
1-5.C	.1153+03	.8121+02	.9846+02	.2479+02	.1420+02	1-5,C	.1707+03	-2018+03	.5452+03	9441+02	.1948+03
		.8388+02					5371+03	.3734+03	4137+03		
1-5.5	3297+03	.0300+02	.2//0402	.2601+02	.1610+02	1-3/3	-,337,1404	•3/34+03	4131403	6437+02	.1405+03
	_						_				
N,C OR		ADVANCE	RATIO: MU = 0.4			N.C OR		ADVANCE	RATIO, MU = 1.0		
	-						-				
			(0.01R						{0.0}R		
. 0	3763+03					0	.3370+04				
1-5,C	.1214+04	6449+03	2801+03	<b>3.</b> 4206+02	1825+02	1-5.C	.7320+04	.2857+04		.7882+03	.8046+03
1-5,5	.6265+04	2174+04		.7266+02	.9515+02	1-5+5	.2224+05	9297+04	.3520+04	.3836+03	5453+02
			(0.14)R						(0.14)R		- · · · - <del>-</del>
0	.1924+03					D	.1403+04				
1-5.C	.2577+03	.1409+02	2988+02	.3633+01	2344+01	1-5.C	.2157+04	.8063+03	.2266+03	.1643+03	9576+02
1-5.5	.6003+03	1454+03		.5881+01	9209+01	1-5.5	.3999+04	1069+04		5786+01	.1009+03
			(0.325)R		.,,	2 0.0		*********	(0.325)R	-\$5760.02	***************************************
0	6355+03		1010207			0	.1447+04				
1-5.C	.2213+03	.2446+03	.6463+02	.1984+02	,9268+01	1-5.0	.1169+04	.4226+03	3629+03	1041+03	4124+03
1-5,5	7079+03	.3960+03		±.1531+02	3779+02	1-5,5	1949+04	·2106+04	8566+03	1435+03	.1332+03
1-5/5	/0/9+03		(0.55)R	1551+02	3//9+02	1-3/3	-,1747704			1435+03	.1332+03
n			(U.33/K			0	1000 - 01-		(0.55)R		
	.9562+03						.1299+04				
1-5.C	.3022+03	.2929+03		.1529+02	.3563+01	1-5,C	.8188+03	•4265+03	.8123+02	3951+03	.1593+03
1-5,5	1087+04	.5631+03	1942+03	3641+02	.5580+01	1-5.5	-,2607+04	.2257+04	1188+04	.1901+02	-,2311+03
			(0.75)R						(0.75)R		
0	.8373+03					9	,5838+03				
1-5,C	.2555+03	.1909+03		.1437+01	5297+01	1-5.C	.2615+03	.2860+03	.5175+03	4484+03	.6422+03
1-5,5	9023+03	.4448+03	1347+03	4180+02	.5546+02	1-5,5	1308+04	.9984+03	8021+03	.1738+03	4603+03
	_		(0.85)R						(0.85)R		
0	.4903+03					J	.2316+03				
1-5,C	.1478+03	.9705+02	.1931+03	1829+01	4982+01	1-5.C	.6964+02	.1481+03	.3711+03	2700+03	4505+03
	5163+03	.2493+03		2668+02	.4377+02	1-5.5	-,5530+03	.3844+03	4073+03	1258+03	3046+03
-,					*********					11230.00	***************************************
N.C OR	-	ADVANCE	RATIO, MU 🗖 0.5			N.C OR		ADMANGE :	RATIO, MU = 1.4		
NIC OR		ADVANCE	KATTO MO MO 1.5			NIC OR		ADVANCE 1	(A)10, MU = 1.4		
	-		(0.0)R				-		10.010		
	- 5007.07		10.01K				1505405		(0.0)R		
- 0	5483+03	****	4540145	0356.41	4=04.03	0	.1595+05				
1-5,C	.1578+04	3998+03		9354+01	1741+03	1-5.0	1937+05	8926+04	.7995+04	1240+04	4229+02
1-5.S	.8588+04	3515+04		.2050+03	.2313+03	1-5.5	.4114+05	1600+05		1077+04	.1157+04
			(0.14)R						(0.14)R		
. 0	.2320+03					0	.5524+04				
1-5,C	.3569+03	.7987+02	6402+02	.6855+01	.2030+02	1-5,6	<b>.</b> 5873+04	+2858+04	.1623+04	1488+02	1223+03
1-5.5	.8260+03	2310+03	.3530+02	.2820+01	-,2208+02	1-5.5	.1006+05	2309+04	.7278+02	5018+03	4193+03
			(0.325)R			·			(0.325)R		
0	.7705+03					0	.2360+04				
1-5.C	.3307+03	.3057+03	.1546+03	.1814+02	.7740+02	1-5.C	.1175+04	•9542+03	9399+03	8484+03	3637+02
	- 9236+03	.6327+03		÷.5701+02	9181+02		- 2169+04	•4355+04		.1915+03	·6930+02
1 3.3	. 755703		(0.55)R			1 3,3			(0.55)R	*1.12.02	10,00402
0	1060400					n	.8578+03				
1-5,C	.1069+04 .4151+03	.3198+03	.4943+03	.1802+02	.8905-01		2725+03	.5302+03	5928+03	.1342+04	.5674+03
				5637+02	.1127+02		3464+04			01042704	
1-5,5	-,1302+04	.8444+03		303/+02	*1151+05	1-012	3404+04	.4917+04		.2146+04	4577+03
_			(0.75)R			_	0074 . 07		(0.75)R		
. 0	.8624+03		4 = - 2 + 4 =	00.40.53	01.40.00	0	-,2276+03				
1-5.C	.3180+03	.1659+03	.6348+03	.8408+01	9410+02	1-5.0	6047+03	-2462+03	.3062+03	.1023+04	.7820+03
1-5.5	977¤+03	.6178+03	2285+03	2398+02	.1309+03	1-5.S	1207+04	·2268+N4		.2647+04	6213+03
			(0.85)R						(0.85)R		
0	.4887+03					0	2669+03				
1-5+C	.17h4+03	.7104+02		.3279+01	<b></b> 7613+02		3775+03	·1075+03	.3047+03	.5390+03	.4760+03
1-5.5	5350+03	.3341+03	1310+03	8348+01	.1037+03	1-5,5	3461+03	•9167+03	.1111+04	.1579+04	3764+03

### TABLE 4. COLLECTIVE PIICH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

		FP = 0.0	044/(1+MU)**2	1 OK MU = 0.711	.011.41				
N.C OR S	ADVANCE RATIO, MU = 0.25			N.C OR S		ADVANCE R	ATIO: MU = 0.7		
	(0.0)R						(0.0)R		
03603+02				0	4014+03				
1-5,0 .3669+03	2179+035968+02	6615+02	2156+02		1816+04	4950+03	.1197+04	.3409+03	.3895+02
1-5.5 .1546+04	1563+03 .9300+02	8976+02	6262+02	1-5,5	4573+04	1651+04	.1799+03 (0.14)R	+.5613+03	6882+02
1469+03	(0.14)R			ο.	1804+03		(U.14)K		
1-5,6 .1749+03	2303+026483+01	6703+01	<b>.6737-00</b>		9074+03	.2096+02	.2856+03	.9063+02	.9549+01
1-5.5 .4177+03	3687+02 .2212+02	1377+02	8651+01		1401+04	4807+03	.6089+02	1290+03	8885+01
	(0.325)R						(0.325)R		
0 .4016+03			10:0:00		7347+03		2220.02	1000.03	1380+02
1-5.0 .1242+03 1-5.52395+03	.1164+03 .3986+02 .3365+022151+02	.3780+02 .4096+02	.1949+02 .3074+02		5339+03 5764+03	.4351+03 .2516+03	3339+03 4433+02	1020+03 .2108+03	1380+02 .3635+02
1-343 -12053400	(0.55)R	.4070702	13074402	1-5/5	5764705	*2510.05	(0.55)R	.2100.00	13033702
0 .5706+03					8875+03				
1-5.0 .1203+03	·1646+03 .7572+02	.5744+02	.2872+02	1-5,C .	3638+03	•5108+03	5065+03	2206+03	2851+02
1-5,54701+03	.5128+023712+02	.6669+02	.4905+02	1-5/5	1134+04	.4256+03	1547+03 (0.75)R	.4061+03	.4927+02
0 .4023+03	(0.75)R			n.	5164+03		(0.7578		
1-5.0 .7548+02	.1047+03 .6039+02	.3912+02	.1974+02		1705+03	.2728+03	2952+03	1697+03	2181+02
1-5.53186+03	2479+02	.4692+02	.3423+02	1-5,5	6640+03	.2290+03		.3004+03	.2892+02
	(0.85)R			_			(0.85)R		
0 .2035+03 1-5,C .3695+02	.5071+02 .3173+02	.1948+02	.9875+01	0 1-5,C	2408+03 7383+02	.1218+03	-,1364+03	8725+02	1120+02
1-5/51574+03	1364+021219+02	.2362+02	.1719+02	1-5,5 -	3049+03	1010+03	7629+02	1527+03	.1348+02
	11007712								
N.C OR S	ADVANCE RATIO: MU ≈ 0.4			N.C OR S		ADVANCE R	ATIO, MU = 1.0		
	(0.0)R						(0.0)R		
01622+03				9.	2580+03		101011		
1-5,C .8199+03	4487+03 .3145+03	.6520+02	.1315+02	1-5.C .	.3153+04	2421+03	.1896+04	5061+03	1819+03
1-5.5 .2656+04		+.3465+02	.3236+01	1-5.5	.6799+04	2907+04		÷.1176+04	.1380+03
0 ,1610+03	(0.14)R			Λ.	.5837+03		(0.14)R		
1-5,6 .3617+03	6053+02 .6155+02	.1612+02	.2097+01		.1740+04	.2316+03	.5401+03	1007+03	3789+02
1-5.5 .7343+03	1484+03 .3655+02	- 5223+01	.6939-01		2376+04	- 9898+03	1238+03	3199+03	5756+02
	(0.325)R						(0.325)R		
0 .5261+03		10.1.00			.1013+04				
1-5.C .2023+03 1-5.53723+03	.2002+039569+02 .1114+036262+02	1966+02 .1490+02	4994+01 1122+01	1-5,C 1-5,S -	1019+04	.6884+03 .3233+03	-,4399+03 .1731+03	.2617+03 .4315+03	.8984+02 1820+02
1-5/53/23+03	(0.55)R	.1490+02	1122+01	1-5/5 -	.6723+03		(0.55)R	.4315+03	1020+02
0 .7181+03	10100711			0	.9830+03				
1-5,C ,1590+03	.2684+031336+03	4660+02	6497+01		.6026+03	.7182+03	6624+03	.4539+03	.1573+03
1-5,57567+03	.1907+031153+03	.2183+02	.1395+01	1-5,5	.1517+04	•6366+03	.2804+03	.8881+03	<b></b> 9597+02
0 .4849+03	(0.75)R			0 .	4800+03		(0.75)R		
1-5.C .8914+02	•1582+03 <b>-</b> •7677+02	3926+02	3599+01		.2434+03	.3542+03	3372+03	.3119+03	.1082+03
1-5,55140+03	.1208+038594+02	.1398+02	.2709+01	1-5/5 -	.8191+03	.3133+03	.1724+03	.6499+03	8794+02
	(0.85)R						(0.85)R		
0 .2414+03 1-5.C .4197+02	.7405+023543+02	2092+02	-,1633+01	1-5,C	.2062+03	.1522+03	1445+03	.1537+03	.5335+02
1-5.52537+03	.5809+024410+02	-12092+02 -6785+01	.1679+01	1-5/5	.3578+02	1300+03	.8126+02	.3265+03	4695+02
1 3/3 123333	***************************************	10.05.01	*10///01			11000.05	10120.02	.5205.00	-14075702
N,C OR S	ADVANCE RATIO, MU = 0.5			N,C OR S		ADVANCE F	RATIO, MU = 1.4		
	40.010								
·J3442+03	(0.0)R			5 D	.3315+04		(0.0)R		
1-5.C .9983+03	5407+03 .4665+03	2393+03	.2922+02	1-5.C	.5975+04	•6592+03	.2245+04	2096+04	.9784+03
1-5.5 .3531+04	9874+03 .4229+03	<b>8</b> 450+02	.2693+02	1-5.5	.1240+05	4327+04	8135+03	.1255+04	.2120+04
	(0.14)R						(0.14)R		
0 .1411+03 1-5:C .4589+03	4647+02 .8977+02	.4795+02	.6359+01	0 1-5,C	.2318+04 .3469+04	.9153+03	.8791+03	÷.4906+03	.2814+03
1-5,5 .9746+03	2504+03 .9872+02	4.1607+02	.1131+01	1-5,5	.5291+04	1527+04		.3001+03	.6318+03
	(0.325)R	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*******				(0.325)R	10001.00	10020103
0 .6076+03					·1793+04				
1-5.C .2845+03 1-5.54749+03	.2886+031366+03 .1730+031298+03	8350+02 .3311+02	1051+02 1255+02		.1833+04 .3277-00	1304+04		.1002+04	3277+03
2 373 -14749403	(0.55)R	* 2211405	1400402	1-5/5	.3211-00	.6273+03	(0.55)R	<b></b> 5076+03	-,7472+03
0 .6014+03					.1129+04				
1-5.C .2280+03	.3452+031693+03	1479+03	-,2217+02		.8194+03	•1175+04	1570+03	.1681+04	5695+03
1-5/59222+03	.2786+032765+03	.6069+02	3539+01	1-5,5 -	.1701+04	.1126+04	.5883+03	÷.7223+03	1473+04
0 .5173+03	(0.75)R			0	.4038+03		(0.75)R		
1-5,C .1228+03	-1824+038243+02	1073+03	1791+02		·2455+03	•5476+03	.4631+02	.1076+04	3508+03
1-5,5 -,5955+03	.1622+032213+03	.4561+02	.6329+01	1-5.5 -		.5200+03	.3218+03	3874+03	1001+04
	(0.85)R						(0.85)R		,
0 .2530+03 1-5,0 .5651+02	.8092+023468+02	<b>5458+02</b>	9436+01		.1472+03	0704:07	F1F0.00		44.4.5-
1-5.52877+03	.7496+021162+03	.2348+02	.4790+01	1-5,5 -	.6315+02 .3625+03	.2304+03 .2077+03		.5137+03 +.1713+03	1646+03 4872+03
	=								

w.r

### TABLE 4. CULLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

			FP =	U.000447(1+MU)**2	(FOR MU = 8.	7,1.0,1.4)				
N.C OR		ADVANCE RATIO, MU = 0.25			N.C UR	s ·	ADVANCE	RATIO, MU = 0.7		
		(0.0)R				· <b>-</b>		(0.0)R		
0	.6009+03				0	4199+04				
1-5,C 1-5,S	3666+02 .9055+04	.1382+032339+03 2151+04 .1796+03	3539+02 2173+02		1-5,C 1-5,5	.5791+04 .3494+05	.5829+04 1508+05		<b>*.</b> 9641+03 <b></b> 1077+04	6041+03 .1049+04
-		(0.14)R					***************************************	(0.14)R	12077101	
0 1-5,C	.1752+03 .4357+02	.7141+027332-01	.6488+01	.3195+01	0 1-5,C	.9361+03 .9314+03	.4934+03	1121+03	.2882+03	.4661+02
1-5,5	.1525+03	.2174+022206+02	.5298+01		1-5,5	.1201+04	•3991+02		.1772+03	1039+03
_		(0.325)R						(0,325)R		
0 1-5.C	.7579+03 .2507+03	.3893+02 .4159+02	.6581+01	.5793+01	0 1-5,C	.175.3+04 .1195+04	2246+03	2994+01	.4132+03	.2983+03
	7636+03	.3275+035254+02	.8741+01	9255-01		2572+04	2451+04	5912+03	3911+03	3582+03
0	.1592+04	(0.55)R			0	.2189+04		(0.55)R		**
1-5.6	.5162+03	1397+03 .9639+02	,1791+01	5422-00	1-5,0	.9744+03	7120+03	.8704+03	-,2194+03	.1224+03
1-5,5	1200+04	.4436+03 .6454+01	-,6036+01			2713+04	.2585+04	3162+03	1358+03	1675+02
0	.1251+04	(0.75)R			n	.1022+04		(0.75)R		
1-5.C	.3488+93	1364+03 .1171+03	.3138+02	6277+01		4352+02	.7673+02		3808+03	7420+03
1-5.5	9140+113	.2458+03 .1088+03 (0.85)R	2282+02	4593+01	1-5.5	1227+04	.9862+03	.1510+03 (0.85)R	7995+03	.7380+03
О	.6276+03	(0.037k			0	.2792+03		10.0378		
1-5.0	.1409+03	6148+02 .8335+02	.3557+02			3223+03	.3968+03		2122+03	-,7837+03
1-5.5	0329+03	.8524+02 .1065+03	2007+02	~.6544+01	1-5,5	3826+03	.1725+03	.2113+03	6964+03	.7152+03
NO DES		AUVANCE RATIO, MU = 0.4			N.C UK		ADVANCE I	RATIO: MU 🗖 1.0		
	-	(0.0)R				-		(0.0)R		
0	.15.11+04				0	.1358+05				
1-5,0	.1469+04	.9044+037744+03	2406+03		1-5,0	.1277+65	.1156+05	.4959+84	2046+04	.2173+04
1-5.5	.1644+05	6142+04 .6774+03 (U.14)R	-,2680+03	.2516+02	1-5.5	.57e9+05	2326+05	.6515+D4 (0.14)R	1713+04	.3714+04
0	.352/+03				0	.2097+04				
1-5,0	.1941+03	.1803+036077+01 .5143+027272+02	.5118+02 .4455+02		1-5,C 1-5,S	.2405+04 .3580+04	.1377+04 .4689+02		.6519+03 .2273+03	3616+03 2479+03
1-3,3		(0.325)R	.4435702		1-5/3		*4009*1.2	(0.325)R	.22/3703	24/9403
0	.1076+04		F7-0-00	.7701+02	0 1-5,C	2213+04				
1-5,6 1-5,5	.4954+03 1224+04	.6255+02 .1360+03 .8961+031968+03	.5302+02 .8925+02			.16.73+04	5203+03 -4832+04		.9203+03 .3610+03	8023+03 1410+04
		(0.55)R	•					(0.55)R	••••	
0 1-5.C	. 1424+114 . 62,14+03	3158+03 .3718+03	-,1763+02	6229+01	0 1=5.0	.1474+04 5039+02	1611+04	.2558+03	5037+03	.5533+03
	1635+94	.1208+042669+02	3457+02			4031+04	-3889+04	5190+03	6373+01	1929+03
n		(0.75)R			0	.2063+03		(0.75)R		
1-5,C	.1337+04	2308+03 .5136+03	.1260+03	1305+03		1107+04	.1700+02	.8359+03	4137+03	.1768+04
	1504+00	.6833+03 .33u9+03	-,2122+03	3837+02		1381+04	.8619+03	.7137+03	.7414+03	.2666+04
0	.5906+03	(0.85)R			n	1106+03		(0.85)R		
1-5.0	.1282+83	-,5767+02 ,3856+03	.1634+03		1-5,0	21hu+n3	.6156+03	.6158+03	5527+02	.1363+04
1-5.5	-,7457+03	.2469+03 .3431+03	1976+03	5568+02		3127+03	1009+03	.6910+03	.7733+03	.2459+04
N,C OK S		ADVANCE RATIO, HU = 0.5			N,C OK	5	ADVANCE I	RATIO: MU = 1.4		
	-	(0.0)R				_		(0.0)R		
n	.1809+04				0	4208105				
1-5.C	.2302+04	.4017+049760+03 9631+04 .3464+03	1890+03 4087+03	5338+03 8502+02	1-5.C 1-5.5	.6562+05 .6499+05	•1654+05 ••3725+05	.2319+05 2261+04	9650+04 3628+04	.1169+05 .6818+03
1-5.5	2466+95	(0.14)R	4087.05	10302.02				(0.14)R	-,3020404	*0010+03
0	.70:3+03		.2641+02	.7896+02	. 0	7412+04				
1-5,C 1-5,5	4246+J3 3923+J3	.1369+032661+02 .1919+038134+02	.6496+02		1-5.C 1-5.5	.7101+04	.3975+04 5654+03	.1895+04 34 <sub>0</sub> 8+03	.1599+04 4726+03	1318+04 .1279+04
1 3/3	. , , ,	(0.3251R						(0.3251R	-,47201113	•12/7707
0	.14m1+114 .7415+J3	17/2+03 .1558+03	.7645+02	.1790+03	0	-1457+04 1463+04	-1170+04	0.00.44	WC . W . At.	
1-5, c 1-5, S	1660400	.1409+041410+03	.1396+03	.2852+02		75711+114	•9b22+04	2698+04 .7099+03	.3513+04 7430+02	4966+04 .4302+03
		(0.55)R			П	34 / 07	/ -	(0.55)R		
0 1-5,0	.1801+04	-,4995+03 .6269+03	.7629+02	7672+01		3405+03 6022+04	1848+04	-,2618+04	.4845+03	.1818+04
1-5,5	1798+06	.1561+04 .1417+03	3297+02			525.9+04	•B304+04	.3615+04	.3131+04	2029+04
0	.1549+00	(0,75)R			п	-,1007+04		(0.75)R		
1-5,0	.6663+03	7749+03 .1064+04	.3346+02		1-5.6	3946+04	3044+03	1925+04	.2166+04	.9594+04
1-5/5	1473+04	.9545+03 .5480+03 (0.85)R	3101+03	-,5273+02	1-5,5	3351+03	.3551+04	.5274+04	.7922+04	1101+03
n	.5472+93				0	6029+03		(0.85)R		
1-5.C	.5701+03	6117+03 .8789+03	.9290+01		1-5.6	1642+04	.4944+03	1140+04	.2189+04	.7427+04
1-5/5	63uS+03	.4572+03 .4990+03	-,2971+03	5172+02	1-5,5	•6007+B3	.1376+04	.3559+04	.6028+04	.6645+03

## TABLE 4. CULLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (H) MP = 0.5 FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		FP = 0.00	1112(1+MU)**2	(FOR MU = D.	7,1.0,1.4)				
N.C OR S	ADVANCE RATIO, MU = 0.25			N.C OR	5	ADVANCE R	ATIO, MU = 0.7		
	(0.0)R				-		(0.0)R		
0 +6270+02				0	.2634+04				
1-5,0 .9349+02 1-5,5 .6090+04	5421+021583+03 1427+04 .1680+03	1286+02 .1282+02	2951+01 .1080+02	1-5.C	.4719+04	3394+04	5826+02	.1959+03	.8034+03
1-3/5	(0.14)K	.1282+02	.1000+02	1-5,5	.2330+95	1046+05	.2054+04 (0.14)R	.3171+03	.9216+03
0 .3176+03				0	.1244+04				
1-5:0 .1032:03 1-5:5 .5736:03	.2986+021401+02 6157+024361+01	4308-01 .2434+01	.7260-00 7819-00	1-5.0	·1369+04	5981+03	1042+03	.1153+03	7308+02
1-5/5 .5/36+05	(0.325)R	.2434+01	7819-00	1-5,5	.3140+94	6771+03	.1155+03 (0.325)R	.3562+02	6646+02
0 .6257+03				0	.1792+04				
1-5.0 .2374+03	.6499+02 .3523+02 .2843+035357+02	.4883+01	.2113+01	1-5.0	.1101+04	•1017+02	.3436+02	9862+02	3387+03
1-5+57035+03	.2d43+035357+02 (0.55)R	1422+01	3950+01	1-5/5	2043+04	.2099+04	5731+03 (0.55)R	8961+02	3883+03
0 .1312+09				0	.1972+04				
1-5:C .3660+03 1-5:S1050+04	2587-00 .9735+02 .3710+032454+02	.8439+01 1166+02	.6237-00 .9514-01	1-5.C	.9671+03	2659+02	.8577+03	1806+03	.1039+03
1-5/3 -,10,0404	(0.75)R	1100+02	.9314-01	1-5/5	2471+04		7237+03 (0.75)R	-,2503+03	1051+02
0 .1211+110				0	.1196+04				
1-5,0 .3305+03 1-5,58477+03	7851+02 .1190+03 .2653+03 .2474+02	.8144+01 1765+02	1509+01 .4990+01	1-5,C	.3534+03 1260+04	1739+01 .1093+04	.1300+04 4771+03	#.3842+03 2885+03	.5399+03
1-3/364//+03	(0.85)R	1/63+02	.4990+01	1-3/5	1250+04		(0.85)R	2885+03	.4168+03
0 .7228+03				0	.5832+03				
1-5,0 .1956+03 1-5,50794+03	6344+02 .7719+02 .1418+03 .2482+02	.4936+01 1200+02	1342+01 .4018+01		.1022+03	+4221+01	8562+03	2658+03	.4001+03
1-373	.1410+03 .2402+02	1200702	.4010401	1-5.5	5362+03	•4472+03	2422+03	1795+03	.3248+03
N.C UR S	ADVANCE RATIO: MU = 0.4			N.C UR		ADVANCE F	RATIO, MU = 1.0		
	(0.0)R				-		(0.0)R		
0 .6071+03				0	.9909+04		•		_
1-5:C .11n3+04 1-5:5 .1124+05	.2026+035775+03 4155+04 .6405+03	+.1082+03 .3881+02	7081+02 .1438+03	1-5.C	.1152+05	-8819+04		.6718+03	.2420+04
1-5/5 .11/4+05	4155+04 .6405+03 (0.14)R	*3081+0Z	.1436+03	1-5.5	.3883+05	1602+05	.3020+04 (0.14)R	±.6852+03	1552+03
0 .5353+03				0	.3313+04		(0:14/K		
1-5:C .3573+03 1-5:5 .1137+04	.1081+035732+02 2552+0313u6+02	.6319+01 .1312+02	.7133+01 1647+02	1-5.0	.3393+04	.1894+04	.5733+03	.2972+03	2020+03
1-5/5 .115/+04	(0,325)R	.1312+02	1647+02	1-5,5	.7058+04	1647+04	.2124+03 (0.325)R	1497+03	.1983+03
0 .1136+04				0	.2366+04				
1-5.6 .4606+03	.1467+03 .1262+03	.4474+02	.3014+02	1-5.C	.1679+04	1446+03	6806+03	.1844+03	1134+04
1-5:51097+04	.7825+032062+03 (0.55)P	-,1293+01	6188+02	1-5/5	3055+04	•38 <del>96</del> +04	8119+03 (0.55)R	.1495+03	.3073+03
0 .1612+04				0	.1628+04		10.5571		
1-5.6 .6377+03 1-5.51635+04	.3492+02 .3937+03 .1014+041307+03	.3468+02 6715+02	.2845+01 .6912+01	1-5.C	.6333+03	5647+03	2311+03	2963+03	.3233+03
1-3/31635+04	(0.75)R	6/15+02	.6912+01	1-5/5	36+3+04	.3646+04	3251+03 (0.75)R	.6369+03	3361+03
0 .1346+04				0	.3579+03				
1-5/C .5070+03 1-5/S1298+04	1142+03 .5013+03 .7158+03 .3446+02	.3432+01 1103+03	3198+02 .8696+02		3775+03	4404+03	.4308+03	÷.5833+03	.1606+04
1-3/3 -11/-04/04	(0.85)R	1103+03	.0070702	1-5/5	1325+04	-1118+04	.3837+03 (0.85)R	.7557+03	7793+03
0 .7740+03				0	.1650+02				
1-5.C .2850+03 1-5.57284+03	9910+02 .3284+03 .3800+03 .5349+02	4014+01 7607+02	2643+02 .6899+02	1-5.C	3723+03	2343+03	.3563+03	4.3851+03	.1139+04
		11007102	10077702		3937+03	•2543+03	.3355+03	.4598+03	5243+03
NAC OR S	ADVANCE RATIO, MU = 0.5			N.C OR		ADVANCE F	RATIO, MU = 1.4		
	(0.0)R						(0.0)R		
0 .9371+03 1-5.6 .1925+04	•1226+04 <b>~.</b> 9819+03	÷.1445+03	2560+03	0 1-5,C	.2545+05 .2743+05				
1-5/5 .1556+05	6560+04 .7709+03	.1268+03	.3526+03	1-5,5	.5967+05	.1347+05 2401+05	.1385+05 4670+04	÷.5580+04 ÷.2763+04	.2606+04 .5564+03
	(0.14)R	***************************************	************				(0.14)R	-12/03/04	.5564703
0 .7029+03 1-5:C .5656+03	·2513+031075+03	0171.00	2000.00	0	·6590+04				
1-5,5 .1586+04	3968+031120+02	.2171+02 .1425+02	.2808+02 3906+02	1-5,C 1-5,S	.7716+04 .1413+05	.4198+04 3076+04		3596+03 1309+04	2127+03 .6785+03
	(0.325)R	********	***************************************				(0.325)R	-,1309704	.6765405
0 .1389+04 1=5:C .6943+03	·1253+03	.8135+02	.1113+03	0 1-5,C	.3204+04		.=		
1-5.51417+04	·1217+042440+03	±.2975+02	1498+03		.1108+03 3898+04	•1019+04 •7074+04	1770+04 .1162+04	.2874+04 .2445+02	1053+04 .6247+03
0 1300.00	(0.55)R						(0.55)R		10271703
0 .1789+04 1-5:0 .7979+03	7064+02 .7489+03	.3955+02	.2717+01	0	.5994+03 2654+04	4450.55			
1-5.51897+04	•1469+041746+03	1089+03	.1540+02		4698+04	1150+03 -7019+04	1094+04 .4574+04	.4198+04 .3806+04	.1612+04 9422+03
	(0.75)R						(0.75)R		
0 .1347+04 1-5,C .5287+03	2535+03 .9853+03	3248+02	1310+03	. 0 1=5.C	9135+03 2566+04	4904+03	F(08107	****	****
1-5,51306+04	.9304+03 .7798+01	1453+03	.2083+03	1-5,S	6810+03	4904+03 -2473+04	.5608+03 .4919+04	.2952+04 .4926+04	.3121+04 1752+04
	(0.85)R						(0.85)R	17720107	
0 .7398+03 1-5,6 .2721+03	1909+03 .6503+03	3400+02	1065+03	0 1=5.0	7128+03	3224+03	.5587+03	1500.5"	
1-5,56828+03	.4645+03 .4051+02	9617+02	.1655+03	1-5,5	1433+04 .2091+03	3224+03 -7662+03	.5587+03 .2852+04	.1508+04 .2965+04	.1992+04 1112+04
			,		·			12.00.07	1222-04

### TABLE 4. COLLECTIVE PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

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		FF = 0.0044/(1+M0)##2	(FOR MU = 0.771.071.47		
N.C OR S	ADVANCE RATIO, MU = 0.25		N.C OR S	ADVANCE RATIO: MU = 0.7	
	(0.0)R			(0.0)8	
0 .6426+02			0 .2976+03		
1-5-C .3270+03	2451+03 .6110+02	.1836+02 .2936+01	1-5,0 .2742+04	2481+03 .1719+04	.6402+03 .9490+02
1-5.5 .2694+04	4442+03 .1118+03	1685+014021-00	1-5.5 .6735+04	3555+04 .8470+03	±.9243+032280+03
	(0,14)R			(0.14)R	
0 .3087+03			0 .7312+03		
1-5,C .1752+03	3104+02 .8806+01	.4510+01 .6114-00	1-5,C .1465+04	·1893+03 ·3963+03	.1905+03 .9734+01
1-5.5 .7474+03	1028+03 .1998+02	.4601-003066-01	1-5.5 .2627+04	9850+03 .2058+03	2187+032812+02
	(0.325)R			(0.325)R	
0 .7192+03			0 .1376+04		
1-5,0 .1554+03	·106B+031966+02	-,5489+01 -,8026-00	1-5,0 .9960+03	•5947+03 <b></b> 4779+03	±,1705+03 -,3573+02
1-5,3662+03	·1049+034135+02	.1043+01 .2593-00	1-5,57239+03	·6248+03 <b>2976+03</b>	.3234+03 .1133+03
	(0.55)R			(0.55)R	
0 .9942+03			0 .1452+04		
1-5,C .1608+03	.1254+031160+02	1278+021124+01	1-5.C .702b+03	·6246+036451+03	4509+031975+01
1-5.57416+03	6374+02	1910+01 .4001-00	1-5.51653+04	•9380+03 <b>6004+03</b>	.6177+03 .1302+03
	(0.75)R			(0.75)R	
0 .6932+03			0 .8179+03		
1-5.0 .1000+03	.6227+02 .3477+01	1066+026329-00	1-5.C .3071+03	.3118+033277+03	3765+03 .2818+02
1-5.54960+03	.1065+034184+02 (0.85)R	3201+01 .2786-00	1-5.59203+03	·4611+034527+03	.4506+03 .6170+02
0 .3495+03	(0.851K			(0.85)R	
1-5.C .4861+02	.2662+02 .3885+01	5668+012888-00	0 .3736+03 1-5.C .1266+03	.1349+031412+03	
		1949+012880-00 1949+01 .1399-00			1983+03 .1927+02
1-5,52446+03	·5118+022050+02	1949+01 .1399-00	1-5,54098+03	.1934+032314+03	.2279+03 .2567+02
N.C OR S	ADVANCE RATIO, MU = 0.4		I.C OR S	40	
	HETAHOL HA:107 HO = 0.4			ADVANCE RATIO, MU = 1.0	
	(0.0)R			(0.0)R	
0 .9302+02			0 .3021+04	1010711	
1-5.C .8490+03	5944+03 .2816+03	.1251+03 .3119+02	1-5.C .6217+04	.1227+04 .3330+04	÷.7977+032690+03
1-5.5 .4744+04	1267+04 .4797+03	3620+024159+01	1-5.5 .1447+05	6526+045004+03	2.2199+04 .3815+03
	(0.14)R	*******	2 0.0	(0.14)R	-,2179704 (0010700
0 .4206+03			0 .2193+04	10127711	
1-5.C .4388+03	7049+02 .4133+02	.3098+02 .3896+01	1-5,0 .3410+04	.1003+04 .9714+03	÷.1216+036545+02
1-5.5 .1356+04	3034+03 .9082+02	~,3033+01 -,2528+01	1-5,5 .5445+04	2117+042050+03	2.6446+03 .1822+03
	(0.325)R			(0.325)R	
0 .9389+03			0 .2039+04		
1-5.C .3545+03	.2753+039356+02	3932+021343+02	1-5.C .1936+Q4	-1057+046978+03	.5022+03 .1715+03
1-5.55501+03	.2707+031728+03	.1435+021339-00	1~5.55533+03	•9076+03 •4833+02	.6972+035969+02
	(0.55)R			(0.55)R	
0 .1212+04	77/0.00	05:1:00	0 .1528+04		
1-5.C .3293+03	.3368+036875+02	9566+021503+02	1-5.0 .1041+04	.8337+031022+04	.8348+03 .4183+03
1-5,5 -,1185+04	.4346+032858+03	.4208+01 .6538+01	1-5.52196+04	.1512+04 .2666+03	.1520+044203+03
0 .6001+03	(0.75)R			(0.75)R	
1-5,C .1875+03	.1790+035561-00	8181+026896+01	0 .6268+03		
1-5,57980+03	.2669+031980+03	÷.7326+01 .7903+01	1-5.0 .3606+03	.3485+034794+03	.5695+03 .3465+03
1-3/3 -1/980403	(0.85)R	/326+01 ./903+01	1-5,51136+04	.6794+03 .2376+03	.1126+044137+03
0 .3953+03	10.6578			(0.85)R	
1-5,0 .8797+02	.7957+02 .8491+01	4379+022802+01	0 .2462+03 1-5.C .1309+03	1270.02	
1-5,53920+03	.1267+039906+02	5564+01 .4575+01	1-5,54776+03	.1379+031954+03 .2666+03 .1258+03	.2801+03 .1809+03
		10007701	1-5/54//6+03	.2666+03 .1258+03	.5677+032248+03
N.C OR S	ADVANCE RATIO, MU = 0.5		N.C OR S	ADVANCE RATIO, MU = 1.4	
	40.00				
01351+01	(0.0)R			(0.0)R	
	- 4594407 4000407	3404.03 3315.00	0 .1178+05		
1-5,C .1164+04 1-5,S .6371+04	6584+03 .4008+03 2106+04 .9005+03	.3696+03 .7715+02 =.1001+03 .1427+02	1-5,0 .1383+05	.5294+04 .4183+04	<b>4.5214+04</b> .3060+04
1-515 .6571404	(0.14)R	=.1001+03 .1427+02	1-5.5 .2850+05	1057+052778+04	.2281+04 .5318+04
0 .4733+03	(0.14/K			(0.14)R	
1-5.0 .6269+03	3038+02 .5304+02	.8007+02 .1130+02	0 .6984+04		
1-5,5 .1826+04	5090+03 .1905+03	.8007+02 .1130+02 1742+024344+01	1-5,6 .7641+04	.3608+04 .2008+04	÷.1095+04 .8984+03
* 3/3 · 14520+64	(0.325)R	-,1742402 -,4344401	1-5.5 .1291+05	3506+048179+03	.3640+03 .1631+04
0 .1106+04	10132371			(0.325)R	
1-5,0 .5305+03	.3939+031285+03	1251+033213+02	0 .3791+04	B700.00	
1-5,56808+03	-4168+033005+03	.3417+021088+02	1-5,0 .3441+04	.2780+04 .7687+03	.2805+048890+03
_ 0.0 .0.00,00	(0.55)R	-,1000702	1-5.5 .1634+04	•1963+04 •8903+03 (0.55)R	±.1352+041903+04
0 .1354+04			0 ,1498+04	(0.551K	
1-5,C .4696+03	.4259+034694+02	2490+034285+02	1-5.0 .1113+04	·1991+04 ·9353+03	11600.01
1-5.51407+04	.6252+035638+03	.4364+02 .1117+02	1-5,5 -,2094+04		.4622+041408+04
	(0.75)R	***************************************	1-313 -12094104	.3110+04 .1576+04 (0.75)R	1867+044024+04
0 .8454+03			0 .2458+03	(U./SJK	
1-5,C .2466+03	.1976+03 .5828+02	1939+032483+02	1-5.C .1949+03	.9035+03 .8863+03	.2971+047689+03
1-5.58886+03	.3489+034228+03	.2309+02 .2248+02	1-5/51089+04	·9035+03	
	(0.85)R		- 3/3 -41007704	.1402+04 .9754+03 (0.85)R	<b>1052+04 2856+04</b>
0 74066+03			0 .2180+02	10.0018	
1-5.C .1111+03 1-5.54243+03	·8110+02 ·4607+02	1009+031153+02	1-5,C ,3444+02	•3830+03 •4836+03	.1422+043416+03
I-5.54243+03	.1580+032174+03	.1022+02 .1397+02	1-5.54245+03	.5544+03 .4583+03	4776+031411+04
					-11421404

## TABLE 5. blade twist transfer coefficients por a hingeless blade

### (A) MP = 0.1 FP = 0.001 (FOR MU = 0.25;0.4;0.5) FP = 0.000447(1+Mu)+2 (FOR MU = 0.7;1.0:1.4)

		FP = 0.000447(1+MU)**2	(FOR MU = 0.7.1.0.1.4)		
NIC OR S	AUVANCE RATID, MU = 0.25		NIC OH S	AUVANCE RATIO: MU = 8.7	
	(0.0)R			10.015	
0 .1613+05	(0.07K		0 .2281+05	(0.0)R	
1-5.C .2927+05		057+015645+02	1-5:C .8814+05	·1144+05 ·4410+04	.7573+03 .1562+94
1-5:5 .9465+03		261+02 .2049+02	1-5/5 -5169+04	2536+04 .6551+04	.1090+04 .2896 <b>+84</b>
0 .7802+03	(0.14)R		0 .1362+04	(0.14)R	
1-5.C .1325+04		330+01 .3898+01	1-5.C .5941+04	•5219+03 •4311+02	1461+032550+03
1-5.5 .1265+03		003+018286+ <b>0</b> 1	1-5:5 .7055+03	2732+03 .1099+03	6027+023813463
.0 •2834+03	(0,325)R		02136+03	(0.325)R	
1-5.05080-00	>499+021205+026	300+01 .1021492	1-5.0 .8107+02	0887+036878+03	1946+035887+63
1-5,5 .2369+03		438-001515+82	1-5:5 .9883+03	2442+039521+03	2671+031035+04
0 •3152+03	(0.55)R		02835+01	(U+55)R	
1-5:64124+02	0545+012357+01 .1	975+011542400	02835+03 1-5:C +.1990+03	3591+039885+03	.9381+02 .1695483
1-5:5 .3200+03		624+01 .1644+01	1-5/5 -1414+04	5520+031782+04	1304+03 .8540+02
.03711+03	(0.75)R		07220+03	(0.75)R	
1-5,09676+02	·1353+03 ·2746+02 ·2	198+021265+02	07220+03 1-5:C3675+05	·1207+046993+93	3548+02 .1221+84
1-5.5 .1997+03	6460+026460+021	041+02 .2628+02	1-5.5 .1024+04	9588+032028+04	.1837+03 .1969+04
05378+03	(0.85)R			(0,85)R	•
1-5.C8U63+02	•1435+03 •2951+92 •2	287+021183+92	06531+03 1-5:C2794+03	·1317+043514+03	1199+03 .1084+04
1-5/5 .8165+02		919+01 .2512+02	1-5.5 .5345+03	7676+031393+04	.2095+03 .1828+04
					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
N.C OK S	ADVANCE RATIO, MU = 8.4		N.C OR S	AUVANCE RATIO: MU = 1.0	
	(0.8)R			(0.8)R	
0 .1837+05			0 .3320+05	***************************************	
1-5.C .4856+05 1-5.5 .2161+04		550+021289+03	1-5.0 .1370+06	·2126+05 ·1614+05	.2332+04 .1087+05
1-5.5 .2161+04	9794+03 -6863+03:	336+024790+ <b>0</b> 2	1-5.5 .1708+05	4071+04 .2285+05 (0.14)R	.4074+04 .8949+84
0 .8510+03			0 .2832+94	10.1471	
1-5,C .2197+04		997+01 .8140+01	1-5.0 .1393+05	·1818+04 ·5586+83	4463+031518+ <b>9</b> 4
1-5.5 .2537+03	7442+02 .2067+02; (0.325)R	887+013926+41	1-5.5 .2615+04	5864+03 .8089+03 (0.325)R	7765+021087+04
0 -2154+03			01082+04	(U+325/R	•
1-5.C989U+01	1567+034694+02	558+01 .2588 <del> </del> 02	1-5.C .5573+03	1237+042889+04	1007+044486+04
1-5.5 .4390+93		880+014118+01	1-5.5 .1931+04	5163+034018+04	1018+043171+04
0 .2425+03	(0.55)R		01586+04	(0.55)R	
1-5.C8702+02	2314+023283+02	919+01 .3115+01	1-5.C3643+03	1149+044656+04	.5446+03 .1162+84
1-5,5 .6268+03		004+D12836+00	1-5.5 .1952+04	1383+046387+04	7256+03 .3493+03
04735+03	(0.75)R		01464+04	(0.75)R	
1-5.C1773+03	-3522+03 -5165+02:	631+024151+02	1-5,C7162+03	.1524+044213+04	.2133+04 .8957+04
1-5,5 .3944+03	1955+032399+03	559+02 .1120+02	1-5.5 .1028+04	2217+045683+04	.1525+03 .4182+84
- 06243+03	(0.85)R			(0.85)R	
1-5.C1435+03	•3741+03 •6695+92 -•	528+024265 <b>+9</b> 2	09198+03 1-5:05260+03	•1773+04 -•2539+84	.1690+04 .7536+04
1-5.5 .1667+03		492+02 .1180+02	1-5.5 .4409+93	1636+043398+04	.3057+03 .3444+04
NIC ON S	AUVANCE RATIO, MU = 0.5		N/C OR S		•=•••
			NIC OK S	ADVANCE RATID: MU = 1.4	
0 .2005+05	(0.0)R			(0.6)R	
0 .2005+05 1-5:C .6262+05	·6143+04 ·1059+04	169+037591+02	0 .7242+95		
1-5,5 .3440+84		.998+03 .2589+03	1-5,C .2355+06 1-5,S .4141+05	-2988+05 .5656+05 2759+04 .3355+05	7667+03 .5164+84 .6528+042435+84
	(0.14)R		1-3/3 14141403	(0.14)R	.00284042433444
0 .1020+04 1-5:C .2822+04	.8223+022815+92	3063+016931401	0 .9297+84		
1-5,5 .4261+03		3063+016931+01 224+024917+02	1-5.C .3467+05	·4604+04 •3852+04	1130+041120+04
	(0.325)R		1-5.5 .7981+04	9954+03 .3131+04 (0.325)R	.4767+03 .4292+03
0 .2078+03 1-5,C4689+82	1544.05		02570+84	101023711	
1-5.C4689+02 1-5.5 .6447+03		.970+023091+01 .179+021052+03	1-5.C .1536+04	6574+031181+05	8526+032891+04
	(0.55)R		1-5+5 +4163+04	2000+045691+04 (0.55)R	1366404 .2055404
0 ~.2592+02			04252+04	(0.55)K	
1-5.C1381+03 1-5.5 .8329+03		784+02 .1551+02	1-5.C1821+04	1156+042048+05	.1043+04 .1353+84
2-3/3 10367403	2272+033988+03	3522+02 .42 <b>5</b> 6÷ <b>0</b> 1	1-5:5 .3102+04	4484+048315+94	1567+041162+84
04236+83			03588+04	(0,75)R	
1-5.C2534+03		223+02 .3833+02	1-5.C1939+04	·2425+041942+85	.5167+03 .5603 <del>10</del> 4
1-5,5 .6877+03	3450+035480+03 -: (0.85)R	992+02 .1893 <b>+0</b> 2	1-5/5 .1161+04	5228+043510+04	1655+037449+84
04169+83	7100017		02095+04	(0.85)R	
1-5.C2051+03	•4765+03 •5796+02 -•	662+02 .3321+02	1-5,C1160+04	·2489+041167+05	.1664+01 .4237+84
1-5:5 .4212+03	2710+034184+63 .	070+02 .1864+03	1-5.5 .4022+03	3353+049080+03	.2420+036066+04

## TABLE 5. ULADE TWIST (RANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

		FF = 0.00112(1)	MU1442 (FOR MU = 0	.,,1.0,1.4,			
N.C OR S	AUVANCE RATIO, MU = 0.25		N.C UK	S AUV	ANCE RATIO, MU = 0.7		
					(0.0)R		
0 .1090+05	(0.0)R		u	.1567+05	(0.07K		
1-5.6 .2018+05	·7897+03 ·1768+03	7667+0116	53+02 1-5.0		9+04 •8666+04	.1072+04	.4731+03
1-5,59978+03	4426+03 .1577+03	1805+0243	26+02 1-5.5		24+04 .4511+04	·6586+03	1426+04
1 3/3 1///0/03	(0.14)R	***************************************			(0.14)R		
0 .1740+64				-2828+04		F70" 100	7239+82
1-5,0 .2964+04	·9113+U2	9884-0014	22+01 1-5+0		56+04 •7514+ <b>03</b> 26+03 •4976+ <b>03</b>	.5724+02 .5031+02	7239+02 -1913+03
1-5.54196+02	0471+02 .1046+02 (0.325)R	1900+01 .10	32+01 1-5,5	.1564+0300	26+03 .4976+03 (0.325)R	.5034402	*1913+43
0 .423/+03	(U.325)K		0	.7009+0∠	(0.525)		
1-5.6 .2921+03	2634+023922+02	1634+01 .85	54±80 1-5,C		74+032011+04	3367+03	2462+03
1-5.5 .2320+03	1282+023525+02		96+02 1-5,5	.9851+0329	11+038665+03	1582+03	.6800+03
	(0.55)R				(0.95)R		
0 .1453+03	5500.00		0	4177+05 .1968+0510	99+033253+04	4930+03	.7716+02
1-5.C .5139+02 1-5.5 .2938+03	.2703+025588+02 3272+026990+02	8052+0130 6881+0158	28401 1-5,C 37401 1-5,S		71+031703+04	2198+03	3018+03
1-3/3 12930+03	(0.75)R	0881+0138		*1007.04	(0.75)R	121,0700	*******
U1374+03	10775711		9	4504+83			
1-5.03133+02	-0563+024468+02			1230+03 .48	55+032761+04	3948+03	.3930+03
1-5.5 .2027+03	4450+027398+02	1117+0223	36+02 1-5·S	.9593+0376	48+031646+04 (0.85)R	1612+03	1226+#4
	(0.85)R		0	2714+05	(U-85)K		
01375+03 1-5,C3176+02	•6410+02 -•2519+02	7813+0144			81+031566+04	2192+03	.2909+03
1-5.5 .1064+03	4967+024542+02		75+02 1-5/5		80+039755+03	8621+02	8968+03
1-313 11001103	12,0,102						
N.C OK S	AUVANCE RATIO, MU = 0.4		N.C OK		ANCE RATIO, MU = 1.0		
					(0,6)R		
0 .1255+05	(0.0)R		0	.2470+05	10,07K		
1-5,0 .3386+05	·2271+04 ·6472+03	.3628+0116	73+02 1-5∙C		77+05 •3271+65	.2094+04	5787+03
1-5,59808+03	1142+04 .7225+03	.9821+0116	77+02 1-5+5		98+04 .2617+04	.1251+04	9391+03
1 3/3 1/3001/30	(0,14)R				(U.\$4)R		
0 •1954+04				.5317+04			
1-5.C .4966+04	.2554+03 .3666+02		77+01 1-5.C	.2724+05 .32	20+04	.5477+02 .1078+03	2383+01 .3835+03
1-5.5 .4997+02	1696+03 .5775+02 (0.325)R	2177+0166	64 <del>+</del> 01 1-5.5	.8668+0116	(0.325)R	.10,14405	.5555+45
0 .3804+03	10,32374		0	3652+03	101020111		
1-5.C .4727+03	9467+021308+03	6495+0177	84+01 1-5,C	.4304+8492	13+038378+04	8833+05	.1748+83
1-5.5 .4482+03	405B+021369+03	1138+0292	89 <b>+0</b> 1 1-5,5	.1599+8410	57+04 .2555+03	2384+03	.7364483
	(0.55)R				(0.55)R		
0 .5770+02		au 40 - 00	u 44 <b>+0</b> 1 1−5,C	1519+04 -5965+0311	05+041423+05	9147+03	1250+03
1-5,C .6618+02 1-5,S .5665+03	4459+021741+03 9739+022862+03	3460+0225 2397+0279	44+01 1-5,C 54+01 1-5,S		55+04 -8357+03	.1349+03	1019+04
1-3/3 .5005+03	(0.75)R	-12377702 -177	1-3.3	***************************************	(0.75)R		,
_ 02135+03	10170711		0	1179+04			
1-5:06551+02	·2134+031278+03			1747+0326	93+031164+05	4289+03	3611+03
1-5/5 .4019+03	1276+033071+03	2608+0224	21+01 1-5,5	.1144+0416	76+04 .1029+04 (0.85)R	•4530+03	2190+04
	(0.85)R		0	6253+03	(0.857K		
01816+03 1-5,C5984+02	·1642+036923+02	3368+02 .44			43+026384+04	1689+03	2479+03
1-5.5 .2142+03	8433+021923+03		82-00 1-5,5		02+03 .6324+03	.3147+03	1462+04
		11044.02			T		
N.C OR S	AUVANCE RATIO, MU = 0.5		N.C OH		ANCE RATIO, MU = 1.4		
	(0.5)R				(0.0)R		
.0 .1413+85	10.271		0	.4424+05	1010711		
1-5.C .4417+05	.3910+04 .1644+04	.8498+02 .29	70+02 1-5+0	.1345+06 .20	06+05 •2744+05	3162+04	2632+84
1-5,55454+03	1788+04 .1191+04	.1357+0328	11403 1-5.5	9153+0405	93+043135+05	.7708+03	.1213+84
	(0.14)R		_		(0.14)R		
0 .2150+04			0 67 <b>∔0</b> 2 1 <b>-</b> 5•0	.1211+05 .3988+05 .51	72+04 •5147+04	8747+03	.3427+03
1-5,C .6473+04 1-5,S .1864+03	.4292+03 .9157+02 2694+03 .1075+03		67 <b>+0</b> 2 1-5,0 67 <b>+0</b> 2 1-5,5		33+044484+04	2362+02	4520+03
1-3/3 11004/03	(0.325)R	0005701 .21	5,4402	12100104	(0.325)R	******	***************************************
0 •3137+03	101010711		0	9534+02			
1-5.C .6044+03	1906+033424+03		85+02 1-5+0		09+036081+04	.4979+03	.1275+04
1-5,5 .6387+03	8035+022013+03	5627+02 .95	53+02 1-5,5	.2240+0431	04+04 .1154+ <b>0</b> 5 (0.55)R	.3899+03	.2879+02
05279+82	(0.55)R		0	3169+04	(0.55)K		
05279+02 1-5,C .7178+02	.3428+024757+03	1013+03 .29	37-80 1-5·C		88+031057+05	.2320+04	1612+04
1-5,5 .8322+03	1991+034578+03		03+ <b>6</b> 2 1-5+5		98+04 .2121+05	.2986+04	7320+03
	(0.75)R	-140	-		(0.75)R		
03005+03				2461+04		****	
1-5.C9515+02	.3293+033686+93				46+027887+04	.2544+04	3308+84 9493+83
1-5,5 .6241+03	2577+035119+83 (0.85)R	2193+0219	1-5,5	.1148+0420	30+04 •172 <b>9+6</b> 5 (0•85)R	.3666+04	-, 7473743
02302+03	(0.85)K		. 0	1273+04	(0.03/K		
1-5.C83U6+02	-2602+032049+03	8728402 .37	10+02 1-5.0		91+034112+04	.1481+04	2125+84
1-5.5 .3421+03	1698+033244+03	7136+0114	30+93 1-5·S		81+03 .9304+04	.2187+04	5711+03

### TABLE 5. BLADE TWIST TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

			FP = 0.90	441(1+MO)++5	(LOM MR = 0.	7,4.0,1.4)				
N.C OR S	AUVANCE RATIO	5. MU = 9.25			N.C OR S	i	ADVANCE R	ATID, MU = 8.7		
						•		(n. 410		
	(0.1	6)R			0	.8906+84		(0.8)R		
0 .5840 1-5.C .1025	3+84 3+05 •3350+03	.3644+02	1933+01	4074401	1-5+C	.3309+95	.3858+04	.9105+03	.3162+03	9782+82
1-5/5292	1+043958+03	7286+82	1666+02	5263+01	1-5+5	7709+84	3582+04	1735+04	3028+03	7 <del>9</del> 34+ <b>8</b> 2
		£4)R			0	.3728+84		(0.£4)R		
0 .2333 1-5.C .398		.1040+02	1270+01	~.1614+01		.1429+05	·1479+04	.3324+95	.5987+02	8095+81
1-5/5103	7+041522+03	1238+02	3526+01	1338+01		2998+84	1561+04	3233+03	6414+02	.1396+02
	(0.	325)R			_			(0.325)R		
0 .8170 1-5.0 .1230		3634+01	179 <del>9+</del> 01	8825400	0 1 <b>-</b> 5,C	.1016+04 .4955+ <b>0</b> 4	-2820+03	·2168+ <b>8</b> 2	9350+02	.3477+82
1-5,5140		.2801+02	•5365+01	.8476480		3545+03	6293+03	.7418+83	.1528+03	.5737+02
	(0.	55)R						(0.55)R		
0 .2449 1-5:C .385		6800+01	2859+01	1481481	1-5.C	1761+82 .1563+04	.1761+03	2819+82	79£0+02	1461482
1-5.0 .385 1-5.5 .122		-4320+ <b>0</b> 2	.9748+01	.1228+01	1-5/5	.5992+03	4471+03	.1162+04	.3302+03	-,2166+02
	(0.	75)R	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					(0.75)R		
9 .633		3794+01	2283+01	- 4007161	1-5.C	1852+83 .4162+03	.2467+03	.6823+01	9765+01	4726+82
1-5.C .105		.2856+02	.7091+01	1283+01 .6052=00	1-5+5	.4872+03	3099+03	.75\$6+03	.2664+03	7019+02
	(0.	85)R	***************************************					(0,85)R		
0196				7058 <b>=</b> 00	0 1-5•C	1100+03 .1392+03	·1499+03	.9159+01	.3239+01	3011+02
1-5:0 .354 1-5:5 .499		1669+01 .1484+02	1205+01 .3612+01	7058=00. .2543400	1-5.5	2454+83	1599+03	.3669+03	.1392+03	-,4464+82
7-3/3 (43)	-11030.05		10012.02	12313-11		_				
N.C OR S	AUVANCE RATI	0. MU = 0.4			N.C OR		ADVANCE R	MATIO, MU = 1.0		
	10.	6)R				-		(0,8)R		
-0 .685		****			0	.1249+05				
1-5.C .178	U+95 •1003+04	2657+03	-1696+02	1031+02	1-5,0	4940+05	• 6414+04	.9820+03 2581+04	1415+04 .3686+04	8111+02 .1358+04
1-5.5425		2936+03 14)R	78 <b>78</b> +02	1223+02	1-5,5	1117+05	7474+04	(0.14)R	*3000+04	.1330744
0 .269		147K			9	.5653+04				
1~5.C .686	2+04 • 3473+03	.7150+02	.1976+01	5223+01	1-5.C	.2419+05	-2835+04	.6295+03	3743+03	.8634+81
1-5.5147	4+944252+03	4749+02 325)R!	1628+02	5767+01	1-5,5	4965+94	3813+04	4723+ <b>0</b> 3 (0.325)R	.9332+03	.3986483
0 .869		3521M:			٥	.1379+04				
1-5.C .211	8+04 .0610+02	4087+02	1163+02	4859+81	1-5.C	.9584+04	.7245+03		6641+03	.4290+02
1-5.5118	3+031484+03	•1178+93 95)R	.2761+02	19 <del>9</del> 0+01	1-5,5	1118+04	1936+04	.1372+84 (0.55)R	1191+04	-,4329+03
-0 -197		ээж			0	4064+03		(U,55)K		
	6+03 .7492+02	7785+02	2120+02	6602+01	1-5,C	.3220+04	-2071+03		.1522+04	5467+82
1-5.5 .283	5+039949+02	.1723+03	·52 <b>0</b> 0+02	.3614+01	1-5/5	.3917+03	1390+04	•2227+84 (0.75)R	2006+04	9085403
0371		75)R.			D.	4906+83		(0.75)K		
	4+03 •9611+02	5139+02	1699+02	5078+01	1-5,C	.8750+03	-2111+03	•6083+03	.1209+04	9581+82
1-5.5 .210	6+037725+02	.1091+03	.3930+02	.5257+01,	1-5+5	.3961+83	8451+03	.1467+84	1262+04	6596+03
0422		85)R			0	2567+83		(0.85)R		
	7+02 •5739+02	2599+92	8938+01	2656401.	1-5+C	.2975+03	1267+03		.6285+03	5716÷02
1-5.5 .103	7+034158+02	•5270+ <b>0</b> 2	.2026+02	.3125+01	1-5,5	•1983+03	4133+03	•7120+03	~•5 <del>999</del> +03	3303+03
NIC OR S	AUVANCE RATI	O. MI = 0.5			N.C OR	s	AUVANCE	RATIO, MU = 1.4		
110 OK 3	ADVANCE RAIL	- HO - 413			*****	-	• • • • • • • • • • • • • • • • • • • •			
		(6)R			a	.1998+05		(0,0)R		
	2+04 5+05 •1870+04	.4185+03	-1183+03	5950+02	1-5,0	.6251+05	•0892+04	.1191+04	.8277+04	.3088404
1-5/5486	4+041823+04	5952+03	4467+02	1643+02	1-5,5	1138+05	1159+05	1433+04	.4995+04	.2825+84
	(0.	14)R						(0.14)R		•
0 .302 1-5:C .913	0+04 5+04 •6400+03	.1176+03	.1861+02	9935+91	0 1-5,C	.1004+05 .3410+05	•3427+04	-1200+84	-2285+04	.8744403
1-5/5164		9079+02	1692+02	5285+01	1-5,5	5560+04	6915+04		.1484+04	.8832÷83
	(0.	325)R			0	0027.0		(0.325)R		
0 .896	3+03	********	- 5141402	.1210+02	1-5,C	.2877+04 .1494+05	-1010+04	•1626+04	~.3089+04	4000100
1-5,C .279	2+04 •9732+02 7+02 -•2305+03	4218+02 .248 <b>9</b> +03	5161+02 .1187+02	3150+01	1-5,5	1448+64	4220+04	.1730+04	1540+04	-,1228+84 -,80 <del>96+</del> 03
	(0.	55)R						(0,55)R		,
0 .125	4+03	- (000+00	- 0100400	6973+ <b>0</b> 1	0 1-5,C	5041+03 .5112+04	•6076+02	·1736+04	4755+04	- 220016:
	5+03 -8627+02 5+031730+03	6888+02 .3554+03	8162+02 .6014+02	0973+01 1124+02	1-5,5	.2563+03	2935+04	.2629+84	4/59+04 2692+04	2590+04 1533+04
	(0.	75)R						(0.75)R	,,-	1,000.44
0959	8+02		- E446:00	0064100	1-5.C	7635+03 .1349+04	1499+02	.1093+04		
	2+03 •1327+03 -8+03 -•1386+03	3136+02 -2212+03	5612+02 .6270+02	2061+02 1234+02	1-5,5	.2840+03	1553+04		2755+04 1635+04	1643+84 9743+83
2-3-5 1330	(0,	85)R				-		(0.85)R		- ( ) ( 40 / 40
. 072		407/:55	0705:00	4707160	· 0 1-5,C	4015+03 -4509+03	_ 1504404	66.5		
1-5.0 .720	04+02 -0193+02 75+03 -07506+02	1236+02 .1061+03	27 <del>99+</del> 02 .35 <b>26+02</b>	1327+02 7041+01	1-5.5	.1340+03	2396+01 7157+03	•4665+03 •8360+03	1260+04 76#1+03	-,8034+03 -,4620+03
1-973 117	-1/500102									-, 4020443
		HUIC-	DIVIDE LISTED	**************************************	TATED IN ORTAL	M (KANSFER C	OFFECTENTS			

## TABLE 5. BLADE TWIST TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

### (B) MP = 0.3 FP = 0.001 (FOR MU = 0.25,0.4,0.5)

			FP =	0.000447(1+MU) == 2	(FOR MU = 0					
N.C OR S		ADVANCE RATIO, MU = 0.25			N.C OR	s	AUVANCE R	ATID: MU = 6.7		
		(0.0)R				-		(0.0)R		
U	•4890+05				.0	.5627+05				
1-5,C 1-5,S	.3359+05 .1295+05	•1649+04 •6018+03 ••>888+03 •4840+03	.3079+02 .5397+02	.1871+02 .1037+02	1-5,C 1-5,5	.1010+06 .2225+05	•1423+05 -•1068+04	•1792+05 •8480+04	.7359+04 .6078+04	.8266+04 .5742+ <b>8</b> 4
		(U-14)R	15597702	*1037+02				(0.14)R	100/8/04	13172707
0 1-5,C	.2301+04 .1413+04	•8379+02 =.1704+92	.5669+01	1676+81	0 1-5.C	.3141+04 .6253+04	•7996+03	•1287+ <b>83</b>	6469+03	1178÷84
1-5/5	.86≥7+03	1091+03 -1551+02	2886+01		1-5.5	.2594+04	0473+03	-3601+03	6888+03	6064+03
0	·8177+03	(0.325)R			0	1047+04		(0.325)R		
	4695+03	•a201+029770+02	-2864-00		1-5.C	1575+04	2516+03	2995+04	1632+04	-,2965+04
1-5+5	7174+03	1144+036182+02 (0.55)R	4162+01	1660+01	1-5.5	.2835+04	1759+04	1042+04 (0.55)R	1825+04	1945+94
Q	+8934+03				0	1182+04		(0.55)K		
	9963+03 -8876+03	5394+036923+02 5676+021987+03	1994+02 9965+01		1-5,C 1-5,S	2868+04 .3665+04	•1145+04 ••2723+04	4661+84 3860+84	-,5844+03 -,2849+03	.5176+03
1-5.5		(0.75)R	9965+01	3589401	1-5/5		-12/23404	(0.75)R	2049+03	2874+03
	1142+04 910o+03	• • • • • • • • • • • • • • • • • • • •	2770+02	.7369∔81	1-5.0	1790+04 2201+04	•3690+04	3938+04	7363+03	.5790+84
1-5,5	.4233+03	.0009+03 .4945+02 0593+022685+03	4967+02		1-5.5	.2419+04	3444+04	6578+04	.1653+04	.3092+04
٥	1621+04	(0.85)R			0	1471+04		(0.85)R		
	5309+03	•4910+03 •7480+02	1917+02	.8118+01		1150+04	.3233+04	2396+04	7714+03	.5254+04
1-5.	.1097+03	7763+021969+03	5068+02	2346+01	1-5.5	·11c9+04	2543+04	5117+04	.1541+04	.3026+04
N.C OK S		AUVANCE RATIO, MU = 0.4			N.C OR	s	AUVANCE R	ATIO, MU = 1.0		
						-				
0	.5339+05	(0.0)R			0	.7366+05		(0.6)R		
1-5 · C	.5577+05	·+104+04 ·2543+04	.2670+03		1-5.C	1555+06	-2103+05	+4610+05	.1859+05	.2134+65
1-5,5	.1951+05	1218+04 -1935+04 (0.14)R	.5129+03	.3209+83	1-5.5	·26u1+05	•4377+04	.1525+05 (0.14)R	.1158+05	.7063+04
0	.2449+04				.0	5673+84				
1-5.C 1-5.S	.2345+04 .1368+04	-1741+036812+02 2927+03 -8536+02	2306+02		1-5,C 1-5,S	•1414+05 •5021+04	-2533+04 1360+04	•1990+04 •1511+94	1657+04 9323+03	2659+84 4560+83
		(0.325)R		100.0				(0.325)R	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	************
0 1-5•C	.5563+03 7937+03	·1856+034140+93	.3276+01	.3892+02	ე 1-5∙¢	3765+04 3326+04	-2325+03	8181+07	5651+04	8763404
1-5.5	.1348+04	3775+032033+03	6148+02	7611+02	1-5,5	.5203+04	3830+04	1615+04	3759+04	1337+04
0	·6365+93	(0.55)R			u	4631+04		(0.55)R		
1-5.C	1674+04	·9370+033195+03	1023+03	.2116 <del>+</del> 02	1-5.C	4852+04	+2604+03	1476+05	9570+03	1246+04
1-5.5	.1729+04	<559+038285+03 (0.75)R	5042+02	9540+01	1-5.5	.4847+04	5348+04	6276+04 (0.75)R	5184+03	1340+84
	1356+04				0	3204+04				
1-5/C 1-5/S	1507+04 -8553+03	•1612+04 •1654+03 -•J440+03 -•1269+04	2477+03 2455+03		1-5,C 1-5,S	3152+04 .2350+04	+2567+04 -=0245+04	1424+05 8135+04	.3441+04 .422 <b>5</b> +04	.1675+05 4250+04
		(0.85)R		10102752				(0.85)R	******	14200.04
	1767+04 8671+03	·1293+04 ·2830+03	2163+03	1302+63	0 1-5,C	1724+04 1565+04	•2400+04	8759+04	.2917+04	.1443405
1-5.5	.2367+03	3181+039771+03	2589+03	.8721+ <b>8</b> 2	1-5.5	.9067+03	4344+04	5471+04	.3763+04	3746+84
N≠C OH S		AUVANCE RATIO: MU = 0.5			N.C OR		AUVANCE F	ATID: MU = 1.4		
	•	(0.8)R				-		/A A1D		
0	•5723+05				0	-1147+06		(0.6)R		
1-5,C 1-5,S	.7073+05 .2189+05	.0329+04 .4898+04 1244+04 .2510+04	.6754+03		1-5,C	•18≿9+0 <sub>0</sub> •1233+05	•9122+02 •2634+05	+5526+05	.1558+05	.1624493
		(0.14)R	**********	*,0,,,			•2634403	2099+05 (0.14)R	.5744+04	1064+05
0 1-5•C	.2443+84 .2935+04	.2019+03 <b></b> 7551+02	.9667+01	7743462	0 1-5•C	.1287+05 .2152+05		40.04.40		
1-5.5	.1043+04	4613+03 -1976+03	1993+03		1-5,5	.7037+04	.2810+04 1207+04	+6446+04 +2026+04	2252+04 2856+03	.2215\03 .2240\04
a	.2073+03	(0.325)R			0	7037+04		(0.325)R		*******
1-5,0	1075+04	-4098+037866+03	9223+01	6753492	1-5,c	1025+05	+5682+04	8459+04	6073+04	3217403
1-5.5	.1831+04	7803+031767+03 (0.55)R	3632+03	3248493	1-5.5	+9705+04	9400+04	.7694+04	2645+04	.7380+04
0	·2948+03				0	7929+04		(0.55)R		
1-5,C 1-5,S	2178+04 .2564+04	436+048539+03 4637+031484+04	2083+03 1247+02		1-5.C	1086+05 .6303+04	•+330+04	2167+05	.2345+04	1474+04
1-3/2	12304704	(0.75)R		/ 10/ 102	1-312	10303+04	0563+04	•4485+04 (0•75)R	.3259+04	2623+94
0 1-5,C	1656+04 1956+04	.2390+042284+02	7444+03	.1602+02	1-5.0	5841+04 3778+04			4.7	
1-5,5	.1556+04	1022+042589+04	.5250+02		1-5,5	3//8+04 .1909+04	•9121+03 ••0337+04	2147+05 .4532+84	.7476+04 .1324+05	9751+83 1775+85
0	1978+04	(0.85)R						(0,85)R	***************************************	14/2449
1-5.C	1132+04	.1877+04 .3060+03	7178+03			3376+04 9165+03	0066+02	1271+05	.5203+04	3952403
1-5/5	.6350+03	8075+032020+04	1425+02	.6894+03	1-5,5	•5875+03	3782+04	3395+04	.1044+05	1422+05

## TABLE 5. BLABE TWIST TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

# 

		FF - 0.	80152(1+m)/++2	1FOR NO 2 01	112.012.47				
N.C OR S	ADVANCE RATIO, MU = 0.25			N.C OR S	<b>;</b>	AUVANCE R	ATID, MU = 8.7		
					•				
10 +3324+	(0.6)R			. 0	.4018+05		(0.4)R		
10 •3324+ 1-5-C •2386+		.7120+02	.3593482	1-5+C	.7639+05	-1444+05	.1849+85	.7186404	4687484
1-5.5 .8538+		.2761+02	1584+02	1-5.5	.1592+05	2186+04	.1922+84	.2994+03	3629+84
-	(0.14)R						(0.14)R		
0 .5288+ 1-5.C .3300+	04 .1981+03 .24 <b>34+0</b> 2	.3682+01	3680+01	9	.6951+84 .1335+85	-2190+04	·1695+84	.2964403	4216483
1-5.C .3300+ 1-5.S .1585+	94 .1981+03 .2434+82 941318+03 .3373+92	.3764+01	4219##0	1-5∙C 1-5∙S	.4212+04	1028+04	.6281+83	3891+02	.5984+05
1-3/3 113034	(0.325)R	.5/64401	-, 4427-40	1-0/3	.4812744	-11028404	(0.325)A	-10091402	*33641.43
0 •1257+				0	2612+83				
1-5.01803+		~.1582+02	1463+02	1-5.C	1204+03	3608+03	4105+84	2118+04	2084+84
1-5:5 .8859+		3031+01	4245+81	1-5.5	.3369+04	1737+04	.4143+92 (0.55)R	1031+03	.1862+84
0 .4034+	(0.55)R			۵	1420+84		(0.55)R		
1-5.C7110+		2290+02	.2083+01		2075+04	+6290+03	6818+94	2326+04	.5650+02
1-5.5 .8758+	031056+031729+03	1277+02	7657400	1-5.5	3698+04	-+2745+04	2053+04	2277+03	1081+04
	(0.75)R						(0.75)R		
0 44384					1233+04				
1-5.C7010+ 1-5.S .5064+		1862+02 1742+02	.2133+82 .3938+81	1-5.C 1-5.S	-,1772+04 ,2425+84	•1620+04 -•2485+04	5899+04 3213+ <b>8</b> 4	1208+04 .4710+03	.2488+04 3671+04
1-3/3 130041	(0.85)R	1/42702	.3738741	1-5/5	12423784		(0.85)R	*4/10403	30/1444
043174				0	6954+93		10700711		
1-5,C4238+	03 -2828+031084+02	1097+02	.1685+02	1-5.C	9887+03	·1149+04	3370+04	5429403	.1896+84
1-5/5 .24084	<b>0</b> 32215+021422+03	1159+02	.3336+01	1-5.5	.1235+04	~-1368+04	2128+84	.3249+03	2663+04
				w c 00	-	Acuranos o	ATID HU = 4.0		
N+C OR S	ADVANCE RATIO, MU = .0.4			N,C OR		AUVANCE P	WITO MO = #*0		
	(0.6)R				-		(0.6)R		
0 .36614				٠ ٥	.5533+05		•		
1-5,C .3989		.4447+03	.1781÷03	1-5.C	.1180+06	+2386+05	.4088+05	.1036+05	.9531+03
1-5.5 .1323		.2797+03	.2563÷03	1-5+5	.1744+05	1570+03	4218+94	9236+03	2159+04
	(0,14)R						(0.£4)R		
0 •5704+ 1-5•C •5514+		.4084+02	1166+02	0 1-5,C	.1134+05 .2609+05	-5118+04	-5810+ <b>8</b> 4	•39 <del>79</del> 403	.1183+03
1-5.5 .2564		.2314+02	1090+02	1-5,5	.6373+94	1844+04		3898403	.1167+04
	(0,325)R		• • • • • • • • • • • • • • • • • • • •				(0,325)R		•===
0 .1054-				0	2014+04				
1-5.C3086		7737+02	6274+02	1-5.C	.2256+93	2116+03	9189+84	3576+04	3570+03
1-5.5 .1632-	043710+031994+03 (0.55)R	4567+02	8297+02	1-5.5	.5646+04	4334+04	.2629+84 (0.55)R	.3859+03	.2146+04
0 .1202-				0	4396+84		(0.201K		
1-5.C1195		1884+03	.2562÷\$1		3686+04	7374+03	1764+85	2095+04	8794+83
1-5/5 .1674	044183+037542+03	8310+02	-,9462+01	1-5:5	.5256+94	5418+04	.2659+64	.2949+04	2842+84
	(0.75)R						(0.75)R		
06345				0	2939+64				
1-5.C1174- 1-5.S .1006-		2044+03 8207+02	.8111+ <b>0</b> 2 .8601+ <b>0</b> 2	1-5+C 1-5+S	2379+04 .2660+04	2256+03 3680+04	1497+05 .1215+04	.658 <b>5</b> +03	9084÷03 5608÷84
1-3/3 11000	(0.85)R	-10207706	.0001742	1-3/3	.2000+04	3000404	(0.85)R	.5047704	3000 T
05299				0 .	1468+04				
1-5.C7089		1300+03	.6511+02	1-5,C	1136+04 .1160+04	4260+02	8263+04	.8164+03	5291+03
1-5,5 ,4869	031383+036679+03	5009+02	.7143+02	1-5.5	.1168+04	1882+04	.4844+63	.2387+04	3770+84
N+C OR S	ADVANCE RATIO: MU = 0.5			N/C OR	c	ASHANCE	RATIO: MU = 1.4		
M1C UK 2	ADVANCE RATION NO - 0.5					ADVANCE	WHITO, MO - 144		
	(0.8)R						(0,8)R		
0 .4001				. 0	.8672+05				
1-5.C .5124		.1122+04	.7611+03	1-5.C	.1318+06	1523+05	4012+05	-1432+04	2621484
1-5.5 .1541	-051518+04 .1695+04 (0.14)R	.6541+03	.2606+03	1-5.S	.1906+05	•7606+04	3353+05 (0.14)R	5510+04	.4686+84
.0 .6032				0	.2279+05		10.14/K		
1-5.C .7061		.7490+02	9448402	1-5+C	.3387+05	•5586+84	.8953+04	1156+04	.8362+83
1-5.5 -3098	045216+03 .2913+03	1436+02	7565+01	1-5.5	.9919+84	2052+04	4546+04	1556404	.1347+84
	(0,325)R			_			(0.325)R		
0 .7756	03	0300.07	3331403	0 1-5,C	2028+04 3631+04	-3186+04	4747.6"		
1-5.C4440 1-5.5 .2203		2379+03 2047+03	3331+03 8845+02	1-5,C	3631+04 .9802+04	8365+04		9240+03 .2123+04	.2085
1-0:2 .2503	(0.55)R	~62041703	-,0040146	- 373	. 7002.04	-10303704	(0.55)R	· < 123+04	1761+03
02327				0	7426+84				
1-5,01585	-04 -1130+041223+04	-,4423+03	.6913 <del> </del> 02		8516+04	-2187+04	1598+95	.6171+04	1876+84
1-5.5 .2445		9876+02	5613+02	1-5.5	.7283+04	6969+04	.1867+95	.9012+04	1405+04
	(0.75)R			ū	- 404040+		(0.75)R		
08559 1-5,C1535		4433+03	.5213403		4840+04 3218+04	· #854+03	1406+05	0018100	anentès
1-5/5 -1535		4433403 -8630402	1454+82	1-5.5	-2167+04	1953+04	•1367+05	.9019+04 .9973+04	4269+84 1539+84
1-3/3 11040	(0.85)R						(0,85)R	*******	1 1033444
06395	+83			0	2344+84				
1-5.C9229		2719+03	.4082+03		1011+04	• 3360+03	7733+04	·5543+04	2770+64
1-5.5 .8517	+034540+031287+94	.8918+02	.2276+92	1-5,5	•5568+03	4158+03	.7091+04	.5822+04	8933+03

## TABLE 5. BLADE TWIST TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

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			FP =	0.00447(1+MU)**2	(FOR MU = 0	1.7.1.0.1.4)				
N.C OR		AUVANCE RATIO: MU = 0.25			N+C OR	c	AUVANCE (	ATIO, MU = 0.7		
	•	(0.8)R			NIC OR		HDAYMCE I	(#110) MO = 0.1		
0	.1800+85			4.14.		05.05		(0.8)R		
1-5,C 1-5,5	.1372+05	.9487+03 .3644+03 0884+031664+03	.4040+02 3429+02	.6424+01 .4581+01	0 1-5,C	.2415+85 .4816+05	·1169+05	.7629+04	.9179+03	1225403
		(0.14)A	10.25.02	14501.42	1-5.5	8059+04	7896+04	8613+94	4252+04	9233443
0	.7168+04 .5139+04	•3650+03 •8531+02	.1122+02	.1792+01	0	.9921+84		(0.14)R		
1-5,C 1-5,S	.1808+04	<904+03 +.2753+92	5692+01	1002+01	1-5.C	.2027+05	+4562+04	-2218+94	.2537+03	.4737+82
		(0.325)R			1-5,5	.4715+04	3624+04	1943+04	9829+03	.1596+02
0 1-5,C	.2463+64 .1223+04	·1521+038592+92	8089+01	1522+01	ū	.2356+84		(0.325)R		
1-5.5	.1100+04	1450+03 .5437+02	.1534+02	6335-00	1-5.C	.5919+04	•9970+03	1444+04	.2161+02	.1474+03
0	.7173+03	(0.55)R			1-2.2	.4024+04	1662+04	.2759+04 (0.55)R	.15 <del>9</del> 3+04	.5849493
1-5.C	4459+02	·1906+031434+03	2080+02	4230+01	0	4413+83		(U-557K		
1-5.5	.9124+03	1036+03 .5517+02	.2685+02	.2657+00	1-5.C	.8138+03	•5991+03	2967+04	.4219+03	.3566+02
0	1056+01	(0.75)R			1-5.5	.3756+04	9636+03	.4314+04 (0.75)R	.3095+04	.2623405
	2329+03	·1718+039344+02	1743+02	3730+91	0	6908+03				
1-5,5	.4620+03	5619+02 .1885+02	•1983+02	.1035+01	1-5,C 1-5,S	2203+03 .2143+04	-7264+03	2047+04	.5398+03 .2299+04	6738+02
O	6990+02	(0.85)R			1-5/5	.2143+04	4664+03	.2669+04 (0.85)R	.2299+04	1510+05
	1361+03	.9461+024552+02	9265+01	2012+01	0	3783+03				
1-5.5	.2060+03	2621+02 .5813+01	.1016+02	.6781-90	1-5,C 1-5,S	1765+03 .1004+04	.4324+03 2096+03	1012+04 -1268+04	.3135+03 .1170+04	4960+02 1336+03
N.C OR	s	AUVANCE RATIO, MU = 0.4							11110404	~.1336443
	=	40.410			N,C OR		ADVANCE F	RATID, MU = 1.0		
0	.2001+05	(0.0)R				-		(0.8)A		
1-5.0	.2346+05	.2643+04 .1636+04	.2742+03	.5786+02	Ü	.3272+05				
1-5+5	.6453+04	1741+046797+03 (0.14)R	2933+03	~.4053÷01	1-5,C 1-5,S	.6956+05 .1285+05	·1671+05	.5361+04 1319+05	6477+04 .4173+04	.3131+03 .5220+04
0	.8071+04				1-3/3			(0.14)R	.4175+04	,522,0704
1-5.C	.8779+04	·9976+03 .3858+03	.7886+C2	.1079+02	. 0	1417+05	7/77.00		1540.00	AT
1-5,5	.3097+04	7610+039514+02 (0.325)R	4884+02	.1593+01	1-5,C 1-5,S	.3325+05 .7939+04	.7637+04 0599+04	.2517+04 3118+04	1512+04 .1050+04	.2638+03 .1508+04
Ü	2554+04							(0.325)R	11000.07	******
1-5,6 1-5,5	.20u5+04 .2111+04	4067+033846+93 4067+03 .2468+03	5056+02 -1306+03	1718+92 .1303+02	0 1-5,C	.2364+64 .1165+05	•2525+04	.8919+63	.3440+04	.2586+03
1-3/3		(0.55)R	*1300+03	.1303+02	1-5.5	.6068+04	4022+04	-5036+04	1244+04	1504+84
	.53u2+03			1990+ <b>0</b> 2	u			(0.55)R		
1-5,C 1-5,5	6910+02	.4721+036565+03 2937+03 .2169+03	1364+03 .2238+03	1990+02 .3168+02	1-5,0	2268+04 .3u79+04	+1462+04	.3984+03	.7307+04	.1325+03
		(0.75)R	12200100	10100	1-5,5	4704+04	2772+04	.8171+04	1693+04	2960+84
0 1-5•C	1452+03 3843+03	·+405+034358+03	1157+03	8711+01	0	1831+04		(0.75)R		
1-5.5	.6975+03	1325+03 .4838+02	.1629+03	2905+02	1-5,C	6420+03	+1187+04	.2472+03	.5641+04	.4645+81
n	1422+05	(0.85)R			1-5,5	.2310+04	1374+04	.5122+04 (0.85)R	8303+03	2033+04
1-5,6	2270+03	.2449+032139+03	6167+02	3404+01	U	8942+03				
1-5.5	.4054+03	0945+02 .5270+01	.8301+02	.1588+92	1-5,6	.1936+03	• 0463+03	.1271+03	.2886+04	1154+02
					1-5.5	.1015+04	0140+03	.2435+04	3498+03	9956+83
NIC OR	S	AUVANCE RATIO: MU = 0.5			N,C OK		AUVANCE I	RATIO: MU = 1.4		
	-	(0:0)R				· <b>-</b>		(0.8)R		
0	.2263+05				U	.5862+05				
1-5,C 1-5,S	.3104+05 .8165+04	.4677+04 .3186+04 2727+041617+04	.7366+03 6710+03	.6513+82 6332+02	1-5,C 1-5,S	.9558+05 .3559+05	1200+05	.1905+04 1179+05	.4427+04 .2643+05	.9519+04 .8390+04
1-5/5	10100.04	(0.14)R	-*0/10-00	-,0002-102			.1200103	(0.14)R	*2043*03	*0370744
. 0	.8800+04 .1100+05	.747.00 7470.07	1010.07		0	.2871+05	17		4747.00	2524100
1-5,C 1-5,5	.3957+04	•1713+04 .7638+03 •1215+042281+03	.1919+03 1356+03	.1903∔82 .1468∔8≳	1-5,C 1-5,S	.4970+05 .2208+05	-1344+05 7832+04	.3366+04 2188+04	.1363+04 .7557+04	.2581+84 .2640+84
		(0.325)R		V-100				(0.325)R	******	***************************************
0 1-5•C	.2534+U4 .27∠8+04	-5316+037305+03	1574+03	9005+01	1-5•C	.6858+04 .1812+05	•4928+04	•5156+04	3666+03	3728+04
1-5,5	.2865+04	/025+03 -6004+03	2761+03	.6712+02	1-5,5	.1396+05	3607+04	.6517+04	8873+04	2340+04
0		(0.55)R			0			(0,55)R		
1-5.C	.280U+03 1125+03	·u307+031283+04	3428+03	2408+82	1-5,C	2770+04 .3661+04	•1617+04	.4515+04	.8169+03	6601+84
1-5.5	.25<1+04	5763+03 .5763+03	.5771+03	4717+82	1-5+5	8123+04	3866+04	·9588+84	1524+05	4418+04
0	- *17+0.*	(0.75)R			U	- 2503+80		(0,75)R		
	31u7+03 5119+03	•b287+038682+03	2658+03	1948+02	1-5•C	2682+84 .3110+03	•7932+03	•1966+04	.1467+04	4252+84
1-5/5	.1397+04	3258+03 .1793+93	.4693+03	.5061+01	1-5.5	.317++04	1760+04	•5658+04	9364+04	2784+04
a	-,2225+83	(0.85)R			u	1320+04		(0.85)R		
1-5+0	3009+03	.3558+034293+03	1379+03	1023+02	1-5.C	.6241+01	• 5936+03	.7941+03	.8745+03	2032+04
1-5,5	.6467+03	1544+03 -4888+02	.2477+03	2486+91	1-5.5	.1258+64	-•7509+03	.2619+04	4349+04	1315+04

## TABLE 5. BLADE TWIST IRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (G) MP = 0.5 FP = 0.001 (FOR MU = 0.25.0.4.0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU \* 0.7.1.0.1.4)

NIC OR S	•	AUVANCE RAT	ID, MU = 0.25			NIC OR S		AUVANCE R	ATIO: MU = 8.7		
	•		. *15				•				
- u	.8100+05	(0	).8)R			a	.7749+05		(0.8)R		
1-5.C	.3977+05	.1212+03	.9938+03	,8063+02	.2820+92	1-5.C	.1105+06	.3346+84	.2130+05	.9832+04	.1288÷05
1-5.5	.2318+05	7653+03	.7280+03	.1033+03	.6468+02	1-5.5	.2050+05	• 3449+04	.4646+04	.9383+04	.6116+04
u	.3950+04	( 0	1.14)R			n	.3935+84		(0.\$4)R		
1-5.0	.1466+04	.1292+03	6372+02	.8459+01	6788+01	1-5,0	.5904+04	+5929+03	-2314+83	8492+03	1744+84
1-5.5	.1530+04	2406+03	.2804+02	1275+02	8294+81	1-5.5	.3235+84	1518+04	.8481+83	1471+04	4914+83
0	.1300+04	10	325)R			0	2160+04		(0.325)R		
	1364+04	•4416+03	2041+03	-,3856+01	4464+81		3977+04	.1471+04	3745+04	1914+04	4535+04
1-5.5	.1079+04	1993+03	1086+03	1112+02	1862+02	1-5.5	.4288+04	3333+04	.3059+02	3255+04	2226+84
		( (	1•55)R			_			(0.55)R		
0 1-5•6	.1460+04 2708+04	•9251+03	-,4312+02	4069+02	.7816+01	0 1 <del>-</del> 5,C	2017+04 55od+04	.4085+04	6244+04	1117+04	.4383403
1-5.5	.1019+04	·2639+03	-,3662+03	1438+02	2722+01	1-5,5	.4734+04	3546+04	4836+04	.3771+03	7864+83
		10	)•75)R						(0.75)R		
0 1-5∙C	1900+04 2304+04	1000100	.2823+03	5683+02		∪ 1-5,c	2221+04	6003100	5031+04	740E+0#	.8153404
1-5/5	.1961+03	•1042+04 •3776+03	- 4714+03	1207+03	1596+82 .1832+82	1-5,5	3591+04 .2747+04	•5983+04 ••3957+04		3425+04 .4323+04	.3992+84
			0.85)R						(0,85)R		
	2661+04	4.55.05				0	1708+04				
1-5.C 1-5.S	1277+04 1367+03	•7179+03 •2226+03	.2968+03 3356+03	4385+02 12 <b>92</b> +03	2250+02 .1803+02	1-5,C 1-5,S	1675+04 .1255+04	•4458+04 -•2950+04	2785+04 8065+04	3366+04 .3739+04	.7480+ <b>6</b> 4 .4168+04
1-3/3		***************************************			.1003405	1-3/3	.1255+04	-12950704		13/37707	*4100444
N+C OR S		AUVANCE RAT	TIO: MU = 18-4			N+C OR S		AUVANCE P	ATIO: MU = 1.0		
	-		0.6)R				•		(0.6)R		
0	.8549+05	.,	0407K			ů	.9178+85		(U+0/K		
1-5+C	.647u+05	1143+04	.3827+04	.2317+03	.9860+02	1-5+C	·1582+06	•5114+04	.4597+05	.2321+05	.2560+05
1-5,5	.3075+05	1469+04	.2346+84	.564 <b>3</b> +03	.6672+83	1-5.5	.8924+04	•1694+05	2441+94	.1582+05	.2225+04
	.3873+04	((	0.14)R			0	-6023+04		(0.14)R		
1-5.C	.2418+04	· ∠186+03	2102+03	,9160+02	5271+02	1-5.C	·1186+95	-2156+04	·2578+94	-,2222+04	2670+84
1-5.5	.2278+04	6761+03	.1811+03	1142+03	9310+02	1-5.5	.4808+04	2431+04	.2213+04	-,2299+04	.3219483
· 0	.7798+93	CI	0,325)R			0			(0.325)R		
1-5.C	2098+04	-1168+04	-,8062+03	.9144+02	1741+02		6298+04 8227+04	.2974+64	7884+04	7039+04	1064+05
1-5.5	.2110+04	7478+03	2628+03	7078+02	-,2134+03	1-5,5	.7477+04	7075+04	-2682+04	6254+04	5640483
ß	05/4.0-	((	0.55)R						(0,55)R		
1-5,C	.9509+83 4157+04	·2654+04	3556+03	2814+03	.9142+ <b>0</b> 2	0 1-5,c	6066+04 8256+04	.2422+04	1636+05	1027+04	4198+02
1-5.5	2229+04	-2978+03	1494+84	1783+02	9369401	1-5.5	8230704 -5498+04	5792+04	4317+04	.1633+04	2082+04
_		(4	0,75)R		****				(0.75)R		******
0 1-5,C	2071+04 3459+04	.2914+04	.9274+03	7897+03	3178+03	0 1=5•C	3439+04			.3654+04	
1-5.5	.6639+03	.0478+03	2390+84	6724+03	.3238+03	1-5,5	3842+04 .2434+04	.2038+04 5994+04	1539+05 8489+84	.3654+04 .1089+05	.2015+05 7664+84
		((	0.851R				12101111	10234.04	(0.85)R	11007100	
.0	2701+04 1907+04	.1954+04	.1072+04			0	1719+84				
	1907+04	• 1954+04 • 3835+03	1752+04	6982+03 779 <b>9</b> +03	4065÷03 .3212÷ <b>0</b> 3		1494+04 .1107+04	1377+04	9162+04 6026+04	.2950+04 .8953+04	.1799485
	· · · · · -		·	***********	13212.00	1-3/3	*1101704	4386+04	6020704	*8753+04	6465+84
N+C OR		AUVANCE RA	TIO, MU = 0.5			N.C OR		AUVANCE	RATID, MU = 1.4		
	-		0.6)R				-		(0.6)R		
0	.8557+85					0	.1328+06		10.07K		
1-5.C	.8266+05	2711+04	•6375+84	1074+03	.4506+03	1-5,C	·1792+06	1986+05	.3623+05	.8283+04	.1180÷04
1-5.5	.3042+05	1737+04	.2831+04 0.14)R	.2029+04	.2496+94	1-5.5	1741+04	• 3833+05		.1216+05	1907+ <b>8</b> 5
0	.4169+84		01171K			0	-1255+05		(0.14)R		
1-5.C	.2509+04	•4637+03	3638+03	·27 <b>2</b> 4+03	7028+02	1-5+C	.1544+05	•1691+04	.6370+04	2525+04	.1360+04
1-5.5	.2694+84	7383+03	.3690+93 0.325)R	2154+03	3445+83	1-5.5	7950+84	3204+04	.2194+04	2388+04	.3165+84
۰. ۵	.4595+63	· ·	U,323/K			0	****		(0.325)R		
1-5,C	3010+04	.1751+04	1264+84	.3669+03	1569+03		1045+05 1941+05	.9697+04	3543+04	3628+04	1247+84
1-5.5	.2971+04	1312+04	4665+02	5939+03	7964+83	1-5.5	.1299+05	1234+05	.1498+85	6500+04	1031+05
o	4233+03	(1	0.55)R			_			(0,55)R		
1-5+C	4379+04	.3627+04	6111+03	-,6261+03	9283401	0 1 <b>-</b> 5•C	6937+04 1457+05	.7399+04	1567+05	.6918+04	2251404
1-5.5	.3282+04	7783+03	2352+04	2803+03	2337402	1-5,5	1457+05 .5490+04	3312+04		.5650+04	2201+04 2613+04
a	1749+64	(	0.75)R					10012.04	(0,75)R	10000.0-	
	4325+04	.4817+04	.8454+93	1968+04	.2887+03	1-5.0	4439+04	<b></b>			ره اسميرو
1-5.5	.1962+04	·5730+03	4991+04	.4129+03	1414+04	1-5.5	3345+04 -1633+04	7561+02 1462+04		•1182+05 •1985+05	.6757+84 1883+85
0		()	0.85)R			3/3	-1000104		(0.85)R		~.1863440
0 1-5+C	1598+84 2914+84	.3640+04	.1030+04	1755+04	.2834+03	. 0	2869+04				
1-5.5	.9190+03	.3116+03	4212+04	.4972+03	.2834+03	1-5.C 1-5.S	2550+03 .1012+04	1556+04	7884+04	•7769+04	6738+84
- · <del>-</del>					140-0:-4	1-212	*1012+04	~-1589+04	.3646+94	.1442+05	-,1485+85

### TABLE 5. LLADE IWIST TRANSFFP COEFFICIENTS FOR A HINGELESS BLADE

#### (H) MP = 0.5 FP = 0.0025 (FOR MU = 0.25.0.4.0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

	FP = 0.0∪112(1+MU)**	2 (FOR MU = 0.7,1.0,1.4)	
H+C OH 5	AUVANCE RATIO, MU = 0.25	NIC ON S	AUVANCE RATIO, MU = 0.7
	(0.0)R	*****	(0.0)R
0 5575+05		0 .5591+05	10.078
1-5:C .2835+05 1-5:5 .16:3+05	.+392+03 .8470+03 .1261+03 .4040402 >956+03 .4898+03 .3072+02 .2675402	1-5,0 .8277+05	·0089+04 ·2158+05 ·1095+05 .8779+04
	(0.14)R	1-5.5 .1760+05	-1099+04 -1702+031159+045962+04 (0-14)R
0 .8838+04	1007.07	9351+04	
1-5.C .35o8+04 1-5.5 .2869+04	.1993+03 .1229+02 .1113+022829+61 2u40+03 .5256+02 .5598+011755+01	1-5/C .1340+05 1-5/5 .5249+04	1171+04 .2007+04 .3843+037255+03 1171+04 .9159+034317+03 .8206+83
	(U.325)R	1-3/3 .5249+04	1171+04 .9139+034317+03 .8206+83 (0.325)R
0 .2041+04 1-5:C1110+04	·+171+032096+032355+021525+02	01051+04	
1-5/5 -11/9+04		1-5:C2540+04 1-5:5 .4965+04	1181+044852+043376+043864+04 3278+04 .7328+038943+02 .2903+04
	(II, 45)R		(0.55)R
0 .6235+03 1-5:C2128+04	.0041+031199+035675+022564+01	02340+04 1-5:C4763+04	.<943+U48437+043525+041301+03
1-5/5 -1120+04	·0300+013310+033157+023116+01	1-5/5 .5073+04	4143+048437+043525+041301+03 4143+043436+04 .1375+041154+04
07529+03	(0.75)R		(0.75)R
1-5,61911+04	.8526+03 .5903+026539+02 .1435+02	01574+04 1-5:C3255+04	.3463+047558+041680+04 .4102+04
1-5.5 .4444+05	·2564+U34293+O34695+O2 .7253+O1		<921+04 6142+04 . 2214+04 5023±04
U =.72u5+0s	(0.85)R	079.5+0.5	(0.85)R
1-5.01125+04	•5325+03 •/128+024178+02 .1211+02	07935+03 1-5:C1664+04	·2169+044378+046809+03 .3201+04
1-5.5 .1401+03	.2056+032824+033179+02 .6477+01		1537+044155+04 .1474+043688+04
NIC OK S	AUVANCE RATIO, MU = 8.4	N.C OR S	A WANCE DAYEN. WILL B. C.
		MIC OR S	AUVANCE RATIO, MU = 1.0
0 .5947+05	(0.0)R		(U.0)R
1-5:0 .4624+05	·1115+02 ·3370+04 ·6978+03 ·4043+03	0 .7131+05 1-5:C .1194+0 <sub>6</sub>	.1278+05 .3895+05 .1447+05 .2252+04
1-5.5 .2220+05	8891+03 .1820+04 .2120+03 .4351+83	1-5/5 .1553+05	•5252+04 •5387+04 -•9287+04 -•3004+04 -•6456+04
0 .9159+04	(0.14)R		(0.14)R
1-5+C .5863+04	.3670+03 .5232+02 .9162+023676+02	0 .1385+95 1-5:C .2404+05	.5960+04 .6111+04 .2527+03 .2260+83
1-5.5 .4265+84	5414+03 .2575+03 .8029+014654+02	1-5.5 .7062+04	1767+04 .2425+931279+04 .1636+84
0 .1561+06	(0,325)R		(0.325)R
1-5.01694+64	•1130+048542+039883+021626+03	040∠2+04 1-5:C4600+04	·2477+047905+045238+046875+83
1-5,5 .2555+04	0056+033056+036648+021848403	1-5.5 .7744+04	6869+04 .4163+04 .1754+63 .4372+84
0 .1601+03	(0.55)R	06253+04	(0,55)R
1-5/03260+04	·2251+045972+034084+034510+81	0 <b></b> 6253+04 1 <b>-</b> 5≀C7494+04	-1585+041703+051828+041055+04
1-5.5 .2272+04	3580+031431+041332+03 .5911+01	1-5:5 .6171+04	6676+04 -1689+04 -5111+042904+04
09600+83	(U.75)R	03279+04	(0.75)R
1-5.C2930+04	.2418+04 .5794+025572+03 .1909+03	1-5+C3236+04	·0985+031594+05 .2730+048048+03
1-5:5 .1008+04	.3513+032007+041410+03 .2351+03	1-5/5 .1933+04	2907+04 1770+04 -7184+04 8499+84
07968+03	(U+05)K	014,4+04	(0.85)R
1-5.01727+04	·1516+04 ·1640+033707+03 .1553+03	1-5.61179+04	·2299+039133+04 .2389+044306+03
1-5.5 .3755+03	.5538+031344+048861+02 .1890±03	1-5/5 .4795+00	1112+041575+04 -4460+045838+04
N.C OR S	AGVANCE RATIO, MU = 0.5	N.C OR S	ADVANCE RATID, MU = 1.4
	(U.0)R		
0 •6141+05		0 .1188+06	(0.0)R
1-5,6 .5817+05	2494+03 .6275+04 .1960+04 .1861+84	1-5.C .1521+0b	·1197+05 ·3132+05 ·4848+041016+05
1-5:5 .2304+05	+1348+03 +2492+04 +1132+04 +9106+83 (0+14)8	1-5:5 .4263+05	.3311+043638+056350+04 .6300+94
0 +9155+04		0 •3022+05	(0.14)R
1-5.C .7334+04	•4607+03 •1783+03 •1596+032135+03	1-5.C .3412+05	·6247+04
1-5.5 .4720+04	7271+03 -5364+031082+037394+02 (0-325)R	1-5.5 .1873+05	3832+044730+043366+04 ,1180+04 (0.325)R
0 .9947+03		04367+04	(U.325)R
1-5.C2165+04 1-5.S .3413+04	-1592+041532+043831+037978403 1593+042278+034696+033598403	1-5,C1323+05	·0989+041418+042010+04 .6312+84
7-012 +3413+04	1593+042278+034696+033598+03 (0.55)R	1-5,5 .1433+05	7393+04 -1237+05 -5733+036645+93
04304+03		01012+05	
1-5:C4049+04 1-5:S .3454+04	1345+041487+049192+03 .1065+03 1345+042547+049944+025090+02	1-5.01372+05	-7750+048694+04 .1076+05 .8224+03
4-013 4344444	(0.75)R	1-5.5 .8502+04	•9966+03 •1758+05 •1268+05 •4676493
91203+84		05234+04	
1-5/C3502+04 1-5/S .1971+04	3664+045882+031099+04 .1190+64 3494+033960+04 .4063+03 .3542+03	1-5,01305+04 1-5,5 .9193+03	·4892+049153+04 -1616+054583+84
	(0.85)R	1-313 1919103	•7641+04 •1158+05 •1611+05 •1418404 (0•85)R
08777+03		02228+04	
1-5.C2031+04 1-5.5 .9239+03	-2313+041843+036763+03 .9097+03 1994+022704+04 .3481+03 .2965+03	1-5.C .1079+04 1-5.S4942+03	-2405+045266+04 .9971+043371404 -5283+04 .5755+04 .9689+04 .9484#3
	12703703	1.3.3 -1497ETU3	·5283+04 ·5755+04 ·9665+04 ·9454+03

### TABLE 5. BLADE TWIST TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

### (1) MR = 0.5 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)++2 (FOR MU = 0.7,4.0,1.4)

		FP = 0.00447(1+MU)**2	(FOR MU = 0.7/6.0/1.4)		
N+C OR S	AUVANCE RATIO: MU = 9.29		N+C OR S	AUVANCE RATIO, MU = 8.7	
	(0.0)R			(0,61R	
0 .3049+05	(0.6)K		0 •3571+05	(0,0)**	
1-5+0 .1603+05		3226+02 .1943 <sup>1</sup> 02	1-5+C +5413+05	·1366+05 ·1262+05	1164+028788+03
1-5.5 .8092+04		008+027587+*1	1-5:5 .1410+9:	7256+041333+95 (0.14)R	8372+042261+84
0 .1212+05	(0.£4)R		0 •1449+05	(0.14)R	
1-5,C .5661+04	·4349+03 ·1342+03 ·2	673+02 .7311+01	1-5/C .2160+05	·=====================================	.5994+024275+02
1-5.5 .3861+04	3100+031857+021	419+02 .9577**0	1-5.5 .8107+04	4024+043094+04	2066+049248+42
	(0,325)R		0 .3144+04	(0.325)R	
0 .4159+04 1-5:C .6594+03	.3556+031635+039	0674+01 .1856+01	0 .3144+04 1-5:C .4496+04	.1489+042998+84	.4780+03 .5674+83
1-5,5 .2157+04	2576+03 -3721+02 .3	729+02 .7877+01	1-5.5 .6635+04	2892+04 .3871+04	.2783+04 .1188+84
	(0.55)R			(0.55)R	
0 .1175+04 1-5,C1052+04		3974+02 .1747+80	98765+83 1-5:C1436+84	-1123+046145+04	.1374+04 .6255403
1-5:C1052+U4 1-5:S .1462+U4		5499+02 .9698+91	1-5/5 .5885+04	1966+04 .5706+04	.5540+04 .4890+03
1 0.0	(0.75)R	***************************************		(0.75)R	•••
01827+02			01054+04		.1293404 .2939403
1-5:C9323+U3 1-5:S .6620+O3		5729+021293+8( 35≠4+02 .5694+81	1-5:C1534+04 1-5:S .3218+04	1088+044427+04 7611+03 -3257+04	.1293404 .2939403 .41174043819403
1-3/3 .0020403	(0.85)R		1-3/3 13210144	(0.65)R	14551404 -195431-0
01245+03			05543+05	_	
1-5.C4875+03 1-5.5 .2796+03	.2026+037112+02 5420+014646+02 .	2042+028834-01 1711+02 .2671+01	1-5:C7851+03 1-5:S .14b1+04	.0149+032225+04 2877+03 .1492+04	.7048+03 .1219+83 .2095+043172+83
1-5/5 .2/96+03		1/11+05 '50/14-01	1-5/5 .1461+04	2877403 .1492404	.20994043172443
N.C OK S	AUVANCE RATIO, MU = 0.4		N+C OK S	AUVANCE RATIO, NU = 1.0	
	40.000			(0. <b>1</b> )0	
0 .3390+85	(0.0)R		0 •4710+05	(0.6)R	
1-5,C .2676+05	•2308+04 •2698+04 •	4577+03 .7783+82	1-5.C .7146+05	.1631+05 .8311+04	1067+05 .1260+04
1-5,5 .1331+05	1059+046862+03	7019+031310+02	1-5.5 .1922+05	8057+042283+95	.1643+04 .6193+04
	(0.14)R		0 .2062+05	(0.14)R	
0 .1325+05 1-5.C .9501+04	·1063+04 ·5699+03 .	1390+03 .4955+81	0 .2002+05 1-5:C .3249+05	.7844+04 .3555+04	2662+04 .7619+03
1-5,5 .6132+04	7573+036821+02	1397+032452+02	1-5.5 .1204+05	5082+045803+04	.1038+03 .1831+04
	(0.325)8			(0.325)R	
0 .4145+04	.0437+037718+93	9357+023375+02	0 .2597+04 1-5:C .8856+04	·3445+04 ·2990+03	.5293+04 .4447483
1-5.6 .1144+84 1-5.5 .37∠6+04		2460+03 .5066+02	1-5,5 .9269+04	5849+04 -7533+84	8786+031940+04
1 3/3 (3/23/04	(0.55)R	15000.02		(0.55)R	•2,
0 .8500+03			03836+04		
1-5,C1604+04 1-5,S .2709+04		3120+031068+92 4212+03 .8932+82	1-5,C .2975+83 1-5,S .6840+04	-2814+041352+84 4296+04 .1214+85	-1163+05 .7428+82 3766+034287+84
1-5/5 .2/09+04	(0.75)R	4212103 .8932102	1-3/3 10040404	(0.75)R	-13/00703 -14201704
02238+03			02764+84		
1-5.C1499+04		2898+03 .1588+02	1-5.04480+03	-2102+041157+04 1655+04 -7347+04	.9077+041167+83
1-5.5 .1277+04	2010+033458+03 . (0.85)R	2989+03 .6536+02	1-5/5 -3107+04	1655+04 .7347+94 (0.65)R	·2576+033194+84
0 -,2209+03			01324+04		
1-5,07838+05		1584+03 .1226+02	1-5.C2065+03	·1097+04 -·5965+03	.4657+048321+82
1-5.5 .5494+05	0192+022202+03 .	1509+03 .3335+02	1-5.5 .1318+94	0206+03 -3439+04	.2144+03 -,1613+84
N.C OK S	AUVANCE RATIO: MU = 0.5		N.C OR S	AUVANCE RATIO: MU = 1.4	
0 .3627+05	(0.8)R		0 .7503+05	(0.8)R	
1-5.6 .3467+05	·4126+04 ·5314+04 ·	1101+04 .1449403	1-5.C .9376+05	.3072+05 .4149+03	7186+04 .1234+85
1-5.5 .1530+05	1194+041862+04	1750+044477+83	1-5:5 .4590+05	2069+042670+05	.3155+05 .1294+05
	(0.14)R	_		(0.14)R	.=
0 .1393+05 1-5.C .1250+85	.1761+84 .1183+04 .	3045+03 .2748+01	0 ,353d+05 1=5;C ,4521+05	·1651+05 ·4331+04	1709+04 .3638+94
1-5:5 .7316+04	1087+041952+03	3873+033402+ <b>0</b> 2	1-5/5 .2955+05	3572+046640+04	.8626+04 .3854+84
	(0.325)R		_	(0.325)R	••••
U .39∠3+04 1-5⋅C .146U+04	1467400 - 4646400	00-0-07	0 .6474+04	70/0400 0001:00	1070101 107110
1-5.C .1460+04 1-5.S .4866+04		2444+036281+82 5817+03 .2296+93	1-5.C .1059+05 1-5.S .1999+05	.7268+04	.4939+044226+04 1160+054370+04
	(0.95)R		2 3/3 11///403	(0.55)R	
0 .4154+03			05072+04		
1-5,02118+04 1-5,5 .3935+04		6581+03 .1792+82 1224+04 .1920+83	1-5:C2d3>+04 1-5:S .1192+05	.3527+04 .7213+04 2985+04 .1525+05	.1122+057943+04 1964+058314+04
1-313 .3933+04	1299+04 .7707+02 . (0,75)R	1224+04 .1920+83	1-012 11745+02	2985+04 .1525+95 (0.75)R	1964+058314+84
u4695+03			03716+04		
1-5,01861+04		2595+03 .7593+02	1-5:C2310+04	·1827+04 ·2932+04	·8787+045206+04
1-5,5 .2037+04	>863+034832+03 . (0.85)R	9814+03 .4934+02	1-5.5 .4460+04	4377+03	1289+055481+84
03318+03	1010378		01716+04	10.03/1	
1-5,09681+03		2998+03 .4975+82	1-5.61006+04	.8688+03 .1128+94	.4486+042591+04
1-5.5 .9179+03	2358+033415+03 .	5156+03 <b>.</b> 92 <b>83</b> + <b>0</b> 1	1-5/5 .1765+04	.368+02 .3739+04	5673+042638+84

### (A) -MP = 0-3 FP = 0-801 (FGR MJ = 0-25/8-4/8-5)

				.000447(1+MU) ==2	(FOR MU = 0.					
No C OR S		ADVANCE RATIO, NU = 0-25			N/C OR S	s	ADVANCE RA	TEO. NU = 0.7		
	•					=				
	.1287+05	(0.4)R				.1301+05		(0.0)R		
1-5.C	1264+05	.6396+83 .1357+83	.1286+02	-,2023+03	1-5.C	.3460+05	-5467+84	-2346+84	,2098+03	.7736+83
1-5,5	6155+83	6876483 -8778482	.3611402	1754+93	1-5.5	.2837+64	4250+03	.321 <del>6+84</del> (0.14)R	.4448+83	.1461+84
	.5755+63	(0.14)R			0	.7314+83	'			
1 <del>-5</del> ,C	.5646+83	.2268+826086+81	-,6118+81	.2219+62	1-5.C	.2311+#4	.2682+63	·1166+82	~.5050+0£	-,1 <del>264+03</del> -,1 <b>965+03</b>
1-5-\$	.9395+82	3416+821948+82 (0.325)R	-,203 <del>6+0</del> 2	.1293+82	1-5.5	.411 <del>6+</del> 03	1181+63	.7858+82 (0.325)R	-,2567+92	7200147
0	.3761+02	(V-325)K			0	2433+03		(8.323/K		
	1994+02	6839+012080+ <b>0</b> 2	7629+81	.5631+82	1-5.C	3398+92	4125+03	3648+83	5065+82	-,2996+93
1-5.5	.2707+03	8351+014819+02	-,4287+02	.3829+82	1-5,5	.5826+03	167 <del>6+</del> 03	4530+03 (0.55)R	1075+83	-,5341+03
	4920+02	(8.55)R			0	3109+03		(8.33/K		
1-5.C	6058+02	•2 <del>222+02</del> -•1 <del>640+0</del> 2	1107+01	7845+81	1-5,C	1871+03	2307+03	5886+83	.1002+02	.7456+82
1-5.5	2990+03	1593+818355+82 (8-75)8	1930+#2	-,1857+82	1-5.5	-8102+03	5476+03	-,1015+64 (0.75)R	92 <del>29+62</del>	.1417+82
D	~.4521+03	(\$.73/R				4737+03		(#.13/K		
	1115+93	-6150+021797+02	1045+02	-,1279+63	1-5.C	-,2347+93	-5212+93	5359+63	-,2046+03	.6296+83
1-5.5	.1917+03	7426+016655+02	•3421+92	-,7944+82	1-5,5	.6163+03	5020+93	1296+64 (0.85)R	5654+82	,9942463
•	~.4677+03	(0.85)Ř			٥	3838+93				
1-5.C	9199+02	-5434+021594+02	1275+82	~.1263+93		7.1610+03	·5863+83	3329+63	-,2283+03	.5570+83
1-5.5	<b>.9788+0</b> 2	9309+013581+82	•4 <b>026</b> +02	7135+ <b>0</b> 2	1-5,5	.3401+03	37 <del>95+0</del> 3	~.9266+03	3201+82	,9355+83
N,C OR S		ADVANCE RATIO: NU = 0.4			N+C OR	c	AUVANCE R	AT10. NU = 1.6		
	-					<b>-</b>				
		(0.6)R			_			(0.8)R		
1-5+C	.1300+05 .2118+05	·1549+04 ·1478+03	1721+03	6911+82	1-5.C	.1598+05 .4687+05	.8230+04	.7991+#4	.1446+84	.6548+84
1-5,5	.6672+03	5960+03 .1983+03	1053+03	1812+03	1-5.5	.8455+04	1251+84	.9372+ <del>04</del>	.1443+84	.3388+84
_		(0.14)R						(0.14)R		
0 1-5-6	•5599+03 •9507+03	-4661+924639-00	.1725+02	3150+01	0 1−5,¢	.1332+04 .4748+04	•6627+03	.2388+83	1833+63	8898+93
1-5.5	.2116+03	>340+02 .1432+02	6186+01	.7629+01	1-5.5	1194+04	2109+03	.3209+#3	4617+62	4243+83
_		(0.325)R			_			(0.325)R		
1-5,C	.3926+01 3631+02	-,3644+92 -,2129+92	.3830+02	.1114+01	3 1~5•C	6197+02 .1247+03	6133+93	1486+84	5307+03	-,2661+64
1-5.5	.4363+03	>452+023488+02	739800	.2678+82	1-5.5	.7019+03	2439+03	1676+04	3821+63	1202+04
_		(0.55)R						(0.55)R		
0 1-5•C	7010+02 1077+03	·5547+022882+02	1579+82	-1687+01	0 1 <del>-5</del> •C	8900+03 2528+03	7277+03	2505+04	.4855+#2	.5954+83
1-5.5	5256+03	7835+021446+03	7431+01	5571+01	1-5.5	.6052+03	6043+03	2787+#4	3253+#3	.9419+82
_		(0.75)R			_			(0.75)R		
Q 1-5,C	4763+03 1487+03	.2141+031085+02	8795+02	2561+01	0 1–5,C	7309+03 3618+03	.2642+03	2573+04	.6998+83	.5071+84
1-5,5	-3194+03	1121+031767+03	3062+02	5888+02	1-5,5	.3933+93	9182+83	2 <del>696+8</del> 4	1379+63	.1413+84
۵		(0.85)R			_			(0-85)R		
	4900+03 1084+03	.1992+03 .1866-00	8076+02	3584+01	9 1-5,C	4290+03 2478+03	.9710+03	1653+#4	.5797+83	.4275+84
1-5.5	.1436+03	9144+021201+03	3010+02	5678+82	1-5.5	.2224+03	6689+03	1680+64	5191+ <del>8</del> 2	.115 <del>5+84</del>
	_	AND THE PARTY OF T			N/C OR		ARUSSEL 1	RATIO, MU = 1.4		
N.C OR S	-	AUVANCE RATIO: MU = 0.5					ADTANCE (	WIIO, NO - 714		
		(0.0)R			_			(0.0)R		
	.1304+05 .2760+05	.3129+04 .6612+03	1560+03	7320+02	0 1-5-C	.2744+85 .5955+05	-5694+04	.1943+05	.7371+83	.2434+84
1-5,C 1-5,S	.2760+05	4401+03 .6566+03	.7604+02	.8861+92	1-5,5	.1304+05	.6410+03		.6638+83	4515+64
1-3.3		(8.14)R						(0.14)R		
	.6005+03	.4332+02 <b>1487</b> +02	.2744+02	.4115+01	9 1 <del>-5</del> ,C	.3546+04 .8589+04	•9723+03	.1252488	2905+83	4099+83
1~5•C 1~5•S	.1223+04 .3072+03	.4332+021487+02 5113+82 .21 <del>96</del> +82	4859+91	1865+02	1-5.5		1841+93		.4122+82	.6677+83
2 3.3		(0.325)R						(0.325)R		
	1954+02	1672+03980 <b>8+0</b> 2	.5442+02	.1373+82	0 1-6,c	9779+03 1397+02	-3181+02	~.4138+84	4836+83	1193+64
1-5.C 1-5.S	6275+02 .5392+03	1672+039808+82 8834+027982+02	1855+02	3888+02	1-5,5		7592+03	5228+83	1537+#3	.2448+84
a		(0.55)R						(0.55)R		
	2065+03		30a6+02	.365 <b>8+</b> 01	9 1 <del>-5</del> ,C	1720+04 8354+93	2438+03	7309+04	2063+82	.3651+63
1-5,C 1-5,5	1216+03 -6537+93	-2120+029895+02 1679+032534+03	2014+02	.4874+01	1-5.5	833 <del>4+</del> 83 -4591+03	1411+64	1114+64	4969+82	1106+84
4-243		(0.75)R		* · · ·				(0.75)R		
	4234+03	7 be	1597+83	1561+02	1-5,c	1466+04 6073+03	-2481+83	7390+64	1639+#3	.1766+84
1-5.C 1-5.S	17u3+03 -4835+03	.3305+034548+02 2108+034897+03	159/+83 1164+82	1561492 .7538482	1-5,5		1537+ <b>8</b> 4		-1937793 -2665+#3	-,6996+84
7-313	.463.7403	(0.85)R				-		(0.85)R		*
	3539+03		******	1662+82	9 1-5.C	8518+03 3120+03	+3075+03	~.4567+#4	1960+03	.1346+84
1-5.C 1-5.S	1295+83 .2748+03	.3211+031409+02 1557+033268+03	1487+03 523 <del>6+</del> 01	1662+02 .7346+02	1-5,5	3120+03 -4995+02	9734+83		.2395+03	-,4820+04
1-312	*5140403	-44331443 13540445								

# INFLOW RATIO TRANSFER COEFFICIENTS FOR A HIMBELESS BLACE (B) $M^{\rm p}\approx0.1$

FP = 0.0025 (FOR MU = 0.25.0.4.0.5) FP = 0.00112(1-MU)++2 (FOR MU = 0.7-1.0-1.4)

				FP #	0.00112(1+MU)**Z	(19K MU = 0	. / - 1 - 0 - 1 - 4 -				
M/C OR S		ADMANUTE DA	T10. NU = 0.29			N+C OR	5	ADVANCE R	ATIO, MU = 0.7		
470 04 3			1201 10 - 01				-				
			4.4)R				.8963+04		(0-0)R		
	.8639+84					1-5,0	.2588+05	.3833+84	.4293+64	.4827+63	.2475+83
1-5.C 1-5.S -	-8632+84 7529+83	.3334+83 4636+83	.1409103 .6857+82	-,3404+02 -,2216+02	8663+82 -6A79+82	1-5,5	.1036+03	1005+04	-2025+04	2663+03	6195+63
1-312 -	/324443		0.14)R	-,2210102	*6413445				(0.14)R		
0	.1295+84	•					1543+04				
1-5.C	.1263+84	.4942+82	.7823+81	-,1196+61	.1537+01	1-5,C 1-5,S	.4768+84 .2576+83	-5075+03	.3695+03	.4510+62	3732+42
1-5.5	.4873+81	7134+82	9598+81	1623+82	-,2366+02	1-3/3	. 23/4143	2313+03	.2473+83 (0.325)R	.1845+82	.7950+02
	.1380+03	•	(0.325)R				8271+02		(013E3/K		
1-5.0	.1066+03	-1231+82	3433+82	.3296+01	.2105+82	1-5.C	.5287+03	2774+03	1017+04	1388+83	-,1293+03
1-5.5	-2510+03	1491+82	-,5184+82	-,2626+02	-,5644+02	1-5.5	.5847+03	1807+03	3651+03	6910+82	.2885+93
	_		(0.55)R		F =				(0-55)R.		
	-· 1255+03					1-5,C	3642+03 .1386+02	7315+02	1661+04	2879+83	.3369+82
	2029+02 -2838+83	-3143+02	6331+02 8099+02	1429+82 1537+82	1164+82 .1741+81	1-5/5	.7602+03	3525+03	8390+03	9713+82	1347+62
1-5.8	• 5836+62	1280+82	-,8077402 (4.75)R	123/+02	*1141441				(0.75)R	*******	
	2755+03	`				•	3227+03				
1-5.C ·	6220+02	.4171+02	6335+02	2612+02	-,4554+82		9455+02	-2508+03	1454+04	3008+03	-1750+03
1-5.5	·1656+03	8948+81	7382+02	.5350+01	.7092+82	1-5.5	.5591+03	3731+03	~.8821+03 (0.85)R	7259+82	5308+03
• •		(	(0.85)R				1837+03		(9.85/8		
	1967+83 4479+82	-2765+02	-,3884+82	1995+82	3457+82		6863+02	-2080+03	8304+03	1818+83	.1450+03
1-5.5	.7849+82	4618+01	-,4587+82	.7322+01	.5702+82	1-5.5	.2999+03.	2275+03	5355+03	3914+02	3875+03
			************	*******	13.42.42		_				
NIC OR S	i	ADVANCE RI	AT10: MU = 0.4:			N.C OR	<b>S</b>	ADVANCE I	B.1 = UM +OITA		
	•						-		(0.0)R		
		,	(0.0)R				.1154+05		(444×K		
1-5·C	.1476+85	-1031+04	.3198+83	2928+82	2595+92	1-5.C	.3859+05	.6399+04	•12 <b>68+9</b> 5	.1234+84	-,1966+03
1-5.5	3993+83	6294+83	-2498+83	-,6539+82	5310+01	1-5,5	.8951+83	1506+84	.7650+83	-1017+02	-,1175+84
			(0.14)R			_			(0.14)R		
•	.1310+64					9 1 <del>-5</del> ,C	.2424+04 .9181+04	1199+04	.1575+04	.6979+82	2283+92
1-5.C	.2149+84	1250+03	.1204+02	-,2 <del>056+0</del> 1 -,1 <del>244+02</del>	-(1884+82 -,1874+82	1-5,5	.4637+03	5063+03	•1986+83	2933+62	.1932+03
1-5+5	.1287+83	1847+83	.1716+82 (8.325)R	1544465	-,1874+05	2.373	1400.100	-13003103	(0.325)R	-02733792	.1935143
	·1158+03		19136371			. 4	3105+03				
1-5.C	.1675+03	1457+0Z	-,7716+02	-,2369+01	-, 1202+02	1-5.C	.1359+04	4411+03	3306+04	4716+03	.2348+02
1-5.5	.4271+03	4746+82	6590+02	-,4596+81	-,3876+82	1-5,5	.6814+03	4905+83	.1316+93	.6652+81	.6338+93
			(0.55)R				8597+03		(0.55)R		
	~-1578+03	.7702+02	1014+03	-,2683+02	1057+01	1-5.C	.1107+03	5844+03	5698+04	5965+03	3866+02
1-5.C 1-5.S	2173+02 8865+83	7487+82	1612+83	1258+82	.2560+01	1-5,5	.6138+03	7727+83	-3111+03	,2475+03	4737+83
231.	. 1000103		(0.75)R	,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(0.75)R		
	3012+03						6348+03				_
1-5.C	6712+02	-157 <del>9+03</del>	7386+82	4235+02	.1322+82	1-5.C	9797+82	2515+93	4718+04	3772+83	8305+02
1-5.5	.2 <del>996</del> +03	7444+ <b>6</b> 2	-,1882+83	1153+02	.4889+82	1-5.5	.3353+03	6854+83	.3428+63 (0.85)R	.3498+03	1314+ <b>0</b> 4
•	2111+03		(0.85)R			. •	3311+03		(4.63)K		
	4739+02	-1129+03	-,3989+82	2701+02	.1009+02	1-5.C		9255+02	-,2600+04	1859+83	5551+82
1-5.5	.1472+03	-,4584+82	1207+03	-,6883+01	.3256+02	1-5.5	.1532+03	3877+03	-2056+03	.2203+03	8991+83
		45444465 6	AT10, NÚ = 8.5			عمالت الد	_	ADMANCE	RATIO: MU-= 1.4		
N/C OR S	<u> </u>	WANTE K	W1101 MD + 6*2			N. G. CR	<u> </u>	AUVANCE	MX1104 MO 144		
			(0.0)R						(0.0)R		
•	-9079+84					•	.1593+05				
1-2.C	.1949+85	-2878+84	.9613+83	.1959+02	.3283+82 9672+82	1-5+C		•4676+04		8864+83 7485+83	8316+93 ,4132+83
1-5.5	1274+02	6492+83	.7929+83 (8.14)R	.8958+82	70/2102	1-5.5	. 1941+04	6595+03	7843+84 (0.14)R	-, /465783	*4135449
•	.1321+85		(0014)W				.4322+04				
1-5+C	-2840+04	-2264+83	,5396+02	.1538+82	9718+81	1-5,0		.1195+04	.1376+04	-,2460+03	.3598+82
1-5.5	-2217+03	1158+03	.7625+02	-,4559-00	.5793+01	1-5/5		5752+83	105 <del>6+04</del>	19 <del>06+0</del> 3	.2042+03
			(0.325)R						(0.325)R		
1-5.6	•5792+ <b>62</b> •2267+ <b>0</b> 5	9476+02	2030+03	.4413+81	2401+02	.,e 1 <del>-</del> 5+C	1145+03 .1179+04	1682+03	1824+04	.1586+83	.3494+93
1-5+C 1-5+S	.5283+83	7585+82		2715+02	.2872+02	1-5,8		8732+03	.2987+84	.3064+03	3002+02
			(9.55)R						(0.55)R		
•	~.2091+03					•	1224+84				
	2511+02	-5244482	2944+83	-,7117+02	.3775+01		3493+03	4194+03	3294+94	.7025403	2931+03
1-5.5	•635 <del>6+</del> 83	1423+83	3167+93	-,3136+82	1494+82	1-5/\$	.6347+03	8701+03	5285+04 (0.75)R	,12 <u>1</u> 3+ <b>0</b> 4	4875+83
	3149+03		(0.75)R				9192+03		(\$.121K		
	8928+02	-2243+03	2394+03	-,1264+83	.3531+02		2575+03	2369+03	2557+04	.7657+83	-,7059+03
1-5.5	.4330+03	1550+03	3825+83	1917+02	-,6026+02	1-5.8		4489+0	4213+04	.1325+04	6571+63
			(8.85)R						(0.85)R		
	2122+03	4=4=	. 750	40=7/	.2782+02	. 0	4713+03	****		.4452+03	4607+83
1-5.C 1-5.S	6388+02 .22b1+03	•1715+83 <b>-•9769+82</b>	1359+03 2473+03	8833+82 9364+81	.2782+02 4582+82		1123+03	1067+03 1984+03		.7712+83	3962+83
7-912	.2201443					1-5/5	.7284+02	TAMA48	9 12234	********	

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		FP = 0.	00447(1+MU)**2	(FOR MU = D.	7.1.0.1.4)				
N.C OR S	ADVANCE RATIO: MU = 0.25			N+C OR	5	ADVANCE R	ATTO, MU = 0.7		
	(0.0)R				-				
0 .4408+04	10.078			_			(0.0)R		
1-5.C .4587+04	·1140+03 ·6468+02	5066+02	4205+02	0 1-5,C	.4814+04 .1313+05	1006+04	•4495+03	.1792+03	5344+02
1-5:59058+03	2906+031579+03	.1266+02	6730+01	1-5.5	2547+04	•1896+04 -•1424+04	9858+03	2339+03	-,6503+02
.0 •1691+04	(0.14)R			1-3/3	-+2341704	1424104	(0.14)R	-120037700	-10303402
0 •1691+04 1-5•C •1760+04	•3736+02 •3823+01			0	1964+04				
1-5.52467+03	-3736+02 -3823+01 1131+034509+02	1876+02	1639+02	1-5.C	+5671+04	+6993+03	·1498+03	<b>.</b> 3760+02	1047+02
2 0.0 1240,703	(0.325)R	8681+01	1021+02	1-5,5	9029+03	6308+03	1826+03	5501+02.	2765+01
0 •4635+03	101323/1						(0.325)R		
1-5.C .5132+03	·2588+014489+02	4546+01	4950+01	0 1-5,C	.4430+03 .1933+04	-8738+02	2848+02	6140+02	.9180+01
1-5,5 .1108+03	-·3753+02 ·1927+02	3039+02	1784+0:	1-5,5	.7703+02	2697+03	•4107+03	.9313+02	.2866+02
	(0.55)R		********	1-3/3	17705702	-12097703	(0.55)R	* 4010+0E	12000102
0 .9001+01 1-5.C .1265+03				0	1087+03				
1-5+C +1265+03 1-5+S +1884+03	•2507+016970+02 1731+02 .4281+02	1160+01	5777-00	1-5.C	.5819+03	•5320+02	7639+02	8846+02	1072+02
1-3/3 11404+03	1731+02 -4281+02 (0.75)R	3904+02	1925+02	1+5,5	.4273+03	1922+03	•6157+03	.1953+03	5247+01
09818+02	(0.75)K			_			(0.75)R		
1-5,C .1884+02	•7181+01 -•4903+02	7432-00	.7227-00	0 1-5,C	1438+03		- "770.00	5123+02	2228+02
1-5/5 .1017+03	8905+01 -3001+02	2483+02	1082+02	1-5,5	.1446+03 .2977+03	•1173+03 ••1268+03	4339+02 .3840+03	.1523+03	3001+02
	(0.85)R		******	1-3/3	127/1703	-11200403	(0.85)R	11323703	3001702
06322+02				٥	7704+02		(01001)		
1-5.C .2215+01	4716+012472+02	4193-00	.5184-00	1-5.C	4601+02	.7498+02	1945+02	2365+02	1375+02
1-5.5 .4498+02	4247+01 .1498+02	1208+02	4999+01	1-5,5	1457+03	6424+02	1834+03	.7874+02	1960+02
NoC OR S	ADVANCE DATES AND - A II					_			
********	ADVANCE RATIO: MU = 0.4			N+C OR		ADVANCE F	ATIO: MU = 1.0		
	(0.0)R				-		(0.0)0		
0 •4652+04	101078			0	6710+00		(0.0)R		
1-5.C .7892+04	•4764+03 •8766+02	.7385+01	2474+02	1-5,C	.5719+04 .1636+05	·2778+04	.4253+03	4723+03	1087+03
1-5,51561+04	5604+032379+03	7935+02	2873+02		2491+04	~.2423+04	1302+04	.4566+03	.3065+03
0 •1772+04	(0.14)R						(0.14)R		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
0 •1772+04 1-5:C •3040+04	1700.00			0	.2546+04				
1-5/\$4396+03	•1742+03 •1909+02 ••2208+03 ••4967+02	2291+01	1091+02	1-5.C	7983+04	·1181+04	.2370+03	1327+03	1884+02
2-3/4 -11390103	(0.325)R	2362+02	1457+02	1-5,5	1042+04	1246+04	2590+03	.1234+03	.1069+03
0 •4611+03	(0.353///				5007.05		(0.325)R		
1-5.C .9138+03	.5487+022520+02	1708+02	7731+01	. 0 1-5,C	.5446+03 .3115+04	-2118+03	·1763+03	.2170+03	.3788+02
1-5.5 .1719+03	8260+02 .6632+02	.8891+01	8196+01		1015+03	~6460+03	.6404+03	-v1167+03	8488+02
	(0.55)R			1-3/3	1015/05	-10400103	(0.65)R	401101100	0400*42
01803+02				0	-,2639+03				
1-5.C .2589+03	-6869+024304+02	3649+02	1085+02	1-5,C	.1008+04	2097+02	.2056+03	.5327+03	.1854+02
1-5.5 .3174+03	5556+02 -9779+02	.2531+02	·1317+01	1-5.5	.2380+03	<b></b> 4619+03	.1052+04	1622+03	2568+03
01167+03	(0.75)R						(0.75)R		
1-5.C .6021+02	·6897+022961+02	3180+02	2000.01	0	- 2570+03				
1-5.5 .1804+03	3683+02 .5857+02	.2032+02	8925+01 .6143+01	1-5.C	.2618+03	-3162+02	•1493+03	.4331+03	1105+02
	(0.85)R	VEVSETUE	.0143401	1-5,5	.1640+03	2751+03	.6923+03 (0.85)R	7727+02	-,2184+03
07222+02				0	1301+03		(0.00)%		
1-5.C -1766+02	.3905+021476+02	1716+02	4768+01	1-5,C	.8659+02	•2790+02	.7603+02	.2248+03	9559+01
1-5.5 .8189+02	1885+02 .2754+02	.1063+02	.3997+01	1-5,5	.7715+02	1334+03	.3358+03	3190+02	1144+03
					_				• • • • • • • • • • • • • • • • • • • •
N.C.QR S	ADVANCE RATIO: MU = 0.5			N.C OR	S	ADVANCE 6	RATIO: MU ≈ 1.4		
	(0.0)R				-		(0.0)R		
0 4895+04	( • • • · · · · ·			0	.7995+04		(VIO/N		
1-5.C .1049+05	.1055+04 .2711+03	.7828+02	2828+02	1-5.C	.1745+05	-2613+04	·1367+03	.1896+04	.9055+03
1-5.51909+04	7929+033926+03	4897+02	1490+02	1-5.5	4195+01	2776+04	4560+03	2351+04	.1646+04
	(0.14)R						(0.14)R		
0 +1843+04				0	.3993+04				
1-5:C -4042+04	.3625+03 .7197+02	.1920+02	4329+01	1-5.C	9456+04	·1280+04	•2640+03	.5094+03	.2529+03
1-5,55411+03	3098+035616+02	1285+02	4536+01	1-5,5	•1664+03	-+1656+0 <b>4</b>	.7404+02	.668 <b>9</b> +03	.4771+03
	(0.325)R			0	-1107+04		(0.325)R		
" 0 .4423+03 1-5,C .1213+04	.6307+024114+02	-,2581+02	.6561+01	1-5,C	4035+04	·3533+03	.4511+03	6564+03	-,3863+03
1-545 .2142+03	1163+03 .1662+03	.1731+02	.1109+01	1-5.5	.3393+03	1008+04	-6472+03	8154+03	-,5744+03
- 45 14276703	(0.55)R			- 3/4			(0.55)R		
05426+02				Q-	2375+03				
1-5.C .3411+03	.7008+027173+02	6325+02	2590+01	1-5.C	1296+04	.2081+02		9965+03	7735+03
1-5.5 .4240+03	9134+02 .2201+03	.4873+02	.3028+01	1-5,5	.3038+03	6921+03		1427+04	1056+04
	(0.75)R			-	2424.0-		(0.75)R		
01345+03	DR44.00	E44.4.44	- 0507:04	.0 1-5,C	•3174+03	0022.00		- 5464.59	
1-5:0 .7799+02	•9511+024340+02 6817+02 -1269+03	5446+02 .4445+02	9505+01 .2112+01	1-5.5	.3151+03 .1266+03	•9973+01 <b>-•3613+03</b>	•2727+03 •5863+03	5486+03	5456+03
1-5:52618+03	6817+02 +1267+03 (0.85)R	.7740702	12775407	015	**********	-+4013403	*50#3+93* (0.85)R	-,8903+83	<del>684</del> 1+93
07959+02	N.C0+01			a	1645+03		14.9314		
1=5.C -2246+02	·5737+02 -·2040+02	2921+02	6197+01		.1001+03	.9509+01	<b>-1248+03</b>	2452+03	-,2693+03
1-5.5 .1238+03	3604+025876+02	.2422+08	.1048+01	1-5/5	.4949+02	1657+03	-2894+93	4199+03	3273+03

#### (D) MP = 0.3 FP = 0.001 (FOR MU = 0.25.0.4.0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

N.C OR S	ADVANCE RATIO: MU = 0.25		N+C OR S	ADVANCE RATIO: MU = 0.7
	(0.0)R			(0.0)R
0 .3773+05			0 •3272+05	
1-5.C .1664+0F	·3605+03 ·2919+033118+02	1208+02	1-5.C .3997+05	·4929+04 ·8485+04 ·2882+04 ·3443+04
1-5.5 .6368+04	.8280+02 .2680+03 .2472+02 (0.14)R	3612+01	1-5.5 .8747+04	-2529+04 -3312+04 -2677+04 -2655+04 (0-14)R
0 +1670+04	1011471		0 •1686+04	(0.14)K
1-5+C .6511+03	.6495+029225+01 .9813+01	6619-01	1-5+C .2303+04	-2060+03 -6171+022245+034769+03
1-5+5 .6756+03	8127+02 -1492+025640+01	1042+01	1-5,5 .1286+04	3462+03 .3463+032931+032140+03
0 •6851+02	(0.325)R		09478+03	(0.325)R
1-5.C4192+03	·1632+03 -·5040+02 ·1220+02	.2244+01	1-5,C1095+04	6301+021441+044967+031212+04
1-5.5 .8354+03	1365+033434+024413+01	1683+01	1-5:5 .1703+04	1153+041517+037630+038999+03
	(0.55)R			(0.65)R
02109+03 1-5:C8289+03	-3583+032726+021336+02	.2337+01	01046+04 1-5/C1733+04	·9109+032407+043421+03 .1886+03
1-5,5 .8196+03	0247+021409+03 .8113-00	.6587-00	1-5/S .2117+04	-9109+032407+043421+03 .1886+03 1612+041906+045870+022522+03
	(0.75)R			(0.75)R
01400+04			01153+04	
1-5.C6878+03 1-5.S .3670+03	.4616+03 .5541+022626+02 2244+021905+032615+02	3387+01 -5645+01	1-5.C1238+04 1-5.5 .1472+04	+2082+042303+041239+04 .2304+04
1-3/3 138/0403	(0.85)R	*2042401	1-5/5 .14/2+04	1694+043657+04 -7315+03 -1594+04 (0.85)R
01425+04			08522+03	1010371
1-5.03712+03	.3415+03 .6710+021882+02	4683+01	1-5,06213+03	·1705+04 -·1453+04 -·1213+04 .2094+04
1-5.5 .1123+03	1847+021376+033077+02	.5563+01	1-5+5 +7769+03	1166+042889+04 -6559+03 .1631+04
N+C OR S	ADVANCE RATIO, MU = 0.4		N.C OR S	ADVANCE RATIO, MU = 1.0
	ADTAILED HATTON NO - USA			ADVANCE MATTER NO - 1.0
	(0.0)R			(0.0)R
0 •3719+05	•1025+04 •1376+04 •1011+02	1358+03	0 •3565+05 1-5•C •5588+05	7.5
1-5.C .2637+05 1-5.S .8341+04	.1025+04 .1376+04 .1011+02 .2870+03 .9806+03 .2430+03	.1382+03	1-5,C .5588+05 1-5,S .1187+05	.7676+04 .2150+05 .86%2+04 .1216+05 .5159+04 .5501+04 .4360+04 .2%19+0%
1-3/3 10341704	(0.14)R	1,1002.00	2.373 1210,703	+5159+04 +5501+04 +4360+04 -2419+04 (0-14)R
0 •1576+04			0 •2613+04	
1-5.C .1034+04	.1029+033885+02 .3989+02	.1518+02	1-5:C .4823+04 1-5:S .2233+04	·9118+03 ·7748+037095+031547+04
1-5/5 .9523+03	2007+03 -7795+022604+02 (0.325)R	2105+02	1-5.5 .2233+84	4021+03 -7291+035064+031456+03 (0.325)R
06247+02	(013237)		02165+04	(V-325)K
1-5.06432+03	.3149+032372+03 .4703+02	.5215+02	1-5.C1769+04	7853+023975+042615+045034+04
1-5,5 .1332+04	3757+038655+022891+02	3842+02	1-5.5 .1915+04	1932+043615+031580+043958+03
02925+03	(0.55)R		02599+04	(0.55)R
02925+03 1-5:C1255+04	·8760+03 -·1880+03 -·8676+02	.9144+01	02599+04 1-5.C2332+04	3838+037327+048980+03 .6465+03
1-5-5 .1453+04	2674+035559+031623+02	<b>.</b> 7393+01	1-5.5 .1284+04	2559+042531+04 .1206+036757+03
	(0.75)R		•	(0.75)R
01397+04 1-5:C1032+04	.1149+04 .1122+032443+03	1331+03	01615+04 1-5,C1369+04	
1-5,C1032+04 1-5,S .6845+03	1863+038809+031768+03	1331+03 .4302+02	1-5.C1369+04 1-5.S .6010+03	.4309+037720+04 .7514+03 .9380+04 2821+043552+04 .2241+042272+04
2 373 10843705	(0.85)R	14302102	2 3:3 70020:03	
01402#04			07952+03	
1-5,C5536+03 1-5,5 .2037+03	.d391+03	1430+03 .3533+02	1-5.C6249+03 1-5.S .3100+03	·5643+03 -·4967+04 ·7271+03 .8084+04
1-3/5 1203/+03	17274402011340217420402	.3333+02		1933+042428+04 .1890+041973+04
N+C OR S	ADVANCE RATIO: MU # 0.5		N.C OR S	AUVANCE RATIO: MU = 1.4
*****	40.000			(0.01=
0 •3677+05	(0.0)R		0 +4022+05	(0.0)R
1-5,0 .3215+05	.2293+04 .2981+04 .2309+03	.8699+01	1-5.0 .4309+05	3571+04 .1623+05 .2678+04 .1971+04
1-5.5 .8923+04	·1069+04 ·1315+04 ·7885+03	.6547+03	1-5.5 .4732+04	·1395+051004+05 -8006+027381+04
	(0.14)R			(0.14)R
0 •1429+04 1-5:C •1234+04	•6258+02 <b>-</b> •5610+02 •5095+02	1722+02	0 .4311+04 1-5•C .4039+04	-3219+03 -1604+046938+032525+03
1-5.5 .1012+04	-6258+025610+02 .5095+02 2742+039718+02	7354+02	1-5/5 .2491+04	·1075+03 ·9096+034942+03 ·1312+04
	(0.325)R	*********		(0.325)R
02955+03			02794+04	
1-5.C8156+03 1-5.S .1534+04	.2472+034968+03 .7091+02 0522+031415+021533+03	.1871+02 1974+03	1-5.04442+04	.1618+042749+041220+045522+03 5374+04 .3633+045027+03 .4029+04
7-313 11334404	(0.55)R	44774100	1-5:5 .2760+04	(0.55)R
.04422+03			02829+04	
1-5,01516+04	.1140+045704+031784+03	.4568+02	1-5-C4028+04	.9454+036383+04 .8718+034283+03
1-5.5 .1910+04	0860+039546+031148+01 (0.75)R	2029+02	1-5.5 .8678+03	2522+04 .2215+04 .2465+041374+04
01413+04	(U+75)K		01852+04	(0.75)R
1-5,01233+04	.1587+041400+036794+03	1312+03	1-5.C ~.1228+04	2727+036796+04 .1462+042212+03
1-5,5 .1065+04	0044+031756+041286+03	.3562+03	1-5.5 .1184+03	1465+04 .2213+04 .5217+04 ~.7831+04
01363+04	(0.85)R		4007.5	(0.85)R
01383+04 1-5.C6616+03	.1159+04 .7084+026402+03	1699+03	01027+04 1-5.C2319+03	3919+034200+04 .8684+031470+03
1-5,5 .4044+03	4159+031406+041775+03	.3675+03	1-5/5 .1095+03	3269+03 1635+04 3773+04 6106+04

NOTE- DIVIDE LISTED VALUES BY 1000 TO OBTAIN TRANSFER COEFFICIENTS

- - - V - <u>- 4-- - -</u>

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				FP ≃	0.00112(1+MU)**2	(FOR MU = 0.	7,1.0,1.4)				
N.C OR S	5	AUVANCE RAT	IO: MU = 0.25			N+C OR	s	ADVANCE (	RATIO, MU = 0.7		
	-						-				
0	·2561+05	10	.0)R			В	.2324+05		(0.0)R		
1-5+C	·1184+05	•4655+03	+3137+03	.2314+02	.1788+02	1-5,C	.3010+05	•5516+04	.8394+04	-2804+04	+0+080+0
1-5.5	.4520+04	4682+02	.2143+03	.1403+02	.8201+01	1-5.5	.7003+04	-1022+04	.5634+03	6331+02	- 1397+04
_			.14)R						(0.14)R		
.0 1 <b>-</b> 5,c	.3830+04 .1560+04	+1084+03	.1104+02	.2544+01	3683+01	0 1-5,C	.3875+04 .5063+04	•7996+03	+7819+03	-1979+03	1862+03
1-5.5	.1032+04	0331+02	.2252+02	.1058+01	1673+01	1-5.5	2024+04	2524+03	.3790+03	2877+02	.2476+03
	12002.04		.325)R	*1030.01	-110/3/01			1-52110	(0.325)R	42011402	***************************************
Ų.	.3814+03	•	_				4676+03				
1-5,C 1-5,5	2813+03 -8852+03	1397+03	6975+02	3795+01	9751+01	1-5,C 1-5,S	5035+03 .1894+04	1293+03 1079+04	1889+04 .2620+03	7549+03 1561+02	9274+03
2-3/3	********************	1216+03	4056+02	3577+01	4804+01	1-3/3	*1077704	10/9+04	(0.55)R	1201+05	.7425+03
٠ ٥	4251+03	,,,	13378			0	1114+04				
1-5.C	6148+03	·2896+03	5999+02	1198+02	.4450+01	1-5.C	1335+04	•\$567+03	3299+04	1169+04	.2571+02
1-5.5	.8271+03	1038+03	1275+03 .75)R	9240+01	.4047-00	1-5,5	.2145+04	1511+04	9709+03 (0.75)R	.2296+03	4131+03
0	8725+03	, υ	1751K			0	8299+03		(01/3/K		
1-5,0	- 5574+03	.3231+03	1360+02	1525+02	.1927+02	1-5,0	1016+04	·1103+04	2968+04	~.9637+03	.1073+04
1-5.5	.3798+03	2923+02	1624+03	1103+02	.6497+01	1-5,5	.1433+04	1180+04	1786+04	.3759+03	1466+04
.0	6180+03	(0	.85)R			120	4413+03		(0.85)R		
1-5-C	3286+03	4098+03	.7697-00	9989+01	.1471+02	1-5.C	5451+03	•7583+03	1719+04	5408+03	.8265+03
1-5.5	.1465+03	>376+01	1064+03	7112+01	.5175+01	1-5.5	.7365+03	6487+03	1213+04	.2509+03	1063+04
	_			· ·			_				
N+C OR S		AUVANCE RAT	10, MU = 0.4			N+C OR		ADVANCE I	RATIO: MU = 1.0		
	-	10	*0)K				-		(0.0)R		
0	.2554+05					0	.2612+05		100071		
1-5,C	-18a7+05	+1200+04	.1369+04	2020+03	.4213+02	1-5,C	+4084+05	•9086+04	·1706+05	.4737+04	.8395+03
1-5/5	.6118+04	·1007+02	.7520+03	.1285+03	.1564+03	1-5.5	.8282+04	.2348+04	2601+04 (0.14)R	~.1839+04	3251+04
0	.3764+04	10	•147K			0	.5176+04		(0.14)K		
1-5,0	2499+04	.2433+03	.5806+02	.3237+02	1826+01	1-5.C	8688+04	+1917+04	.2432+04	.2861+03	1006+01
1-5.5	1490+04	1547+03	.1049+03	-1019+02	1441+00	1-5,5	.2759+04	3558+03	•7814+02	3430+03	.6605+03
_		(0	.325)R			n	1337+04		(0.325)R		
0 1-5,C	-2637+03 4164+03	-2817+03	~.2996+03	1978+02	1400+02	1-5,C	6344+03	2271+03	3929+04	1588+04	4238+03
1-5/5	-1424+04	3496+03	~.1081+03	- 2383+02	6167+02	1-5,5	.2033+04	2038+04	.1411+04	•5604+03	.1988+04
			.55)R						(9.55)R		
. 0	- 5188+03					0	2434+04 1892+04		=4.00.000		
1-5.C 1-5.S	9256+03 .1409+04	.6763+03 3556+03	3187+03 4963+03	1244+03 4789+02	2926+01 .5437+01	1-5,C 1-5,S	.1660+04	6654+03 2478+04	7684+04 .1422+04	1491+04 .1963+04	4960+03 1212+04
1-3/3	*1407104		-75)R	-14/03704	13437-12	- 5.5			(0.75)R	12303704	-11515404
0	8897+03					0	1536+04				
1-5.C	8406+03	.8089+03	1602+03	- 1821+03	.1227+02	1-5.C 1-5.S	1033+04 .6761+03	4998+03	6866+04	5102+03	-,2886+03
1-5/5	.7268+03	1778+03	6925+03	5021+02	.8438+02	1-0/3	.0701+03	1565+04	.6363+03 (9.85)R	.2241+04	-,3718+04
Θ	6136+03	,,,	1057K			0	~.7471+03		10100711		
1-5.C	4951+03	•5222+03	6707+02	1229+03	.1050+02	1-5,C	4529+03	2625+03	3879+04	1441+03	1361+03
1-5.5	.3.54+03	7437+02	4630+03	3122+02	.6720+02	1-5.5	.2463+03	7721+03	.2489+03	.1352+04	2563+04
N+C OR S	5	ADVANCE RAT	10, MU = 0.5			N/C OR	S	ADVANCE	RATIO, MU = 1.4		
	-						-				
0	•2555+05	(0	.0)R						(0.0)R		
1-5.C	·2334+05	.2306+04	.2908+04	.5976+03	.4251+03	0 1-5+C	•3135+05 •3446+05	.3463+04	•1282+05	1714+04	1991+04
1-5:5	.6826+04	+4437+03	.9970+03	.3545+03	.2803+03	1-5.5	.9466+04	•5580+04		-,2966+04	.9619+03
		(0	.14)R						(0.14)R	14700.0.	*,,,,,,,
0 1-5,C	•3665+04 •3064+04	.3500+03	.1460+03	.7120+02	4403+02	. 0	.7977+04				
1-5/5	·1683+04	1950+03	2069+03	.2586+01	1494+02	1-5,C 1-5,S	.7942+04 .3976+04	.1324+04 .2014+03	.2737+04 1277+04	6311+03 9117+03	.2019+03 .6044+03
			.325)R		11174.02	1-3/3	10970104	12014703	(0.325)R	921/403	.6074703
	-5587+02					0	1201+04				
1-5.C 1-5.S	5238+03 .1674+04	•2325+03 -•6083+03	6261+03 6074+02	9083+02 9334+02	1742+03 9681+02	1-5.C	2847+04	-6461+03		4040+03	.1068+04
1-3/3	11074104	-+5083703	1.55)R	-17034402	3002102	1-5:\$	.2817+04	2476+04	.4352+04 (0.55)R	.8091+03	.3646+03
0	6770+03					0	2861+04		.0155/1		
1-5.C	-,1134+04	+8235+03	8176+03	3204+03	.2329+02	1-5,C	3864+04	8410+02	5396+04	.2735+04	4457+03
1-5.5	.1801+04	7370+03	8194+03	5552+02	1410+02	1-5.5	.1622+04	1622+04	-6569+04	.4012+04	~.8080+03
.0	<b>9065+03</b>	(0	******			0	1592+04		(0.75)R		
1-5.C	1004+04	.1126+84	5854+03	4206+03	.2515+03	1-5,0		5202+03	4647+04	.3227+04	1563+04
1-5.5	.1095+04	5024+03	1286+04	.2246+02	.9502+02	1-5.5	.1555+03	.1337+03	• 4649+0 <del>4</del>	.4533+04	1341+04
n	-,5963+03	(0	-85)R			_			(0.85)R		
1-5,C	5867+03	.7503+03	3132+03	2775+03	.1989+03	. 0 1=5.C	7114+03 4526+03	~.3548+03	2540+04	.1909+64	1048+04
1-5.5	.5346+03	2623+03	8801+03	.2906+02	.7963+02		1074+03	•3232+03	-2381+04	.2658+04	8385+03
											-10000-10

### (F) MP = 0.3 FP = 0.01 (FOR MU = 0.25:0.4:0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7:1.0:1.4)

			FF = 01	00447(1+M07++2	11-0K MO 2 0111	1,0,1,4,				
N.C OR S		ADVANCE RATIO: MU 7 0-2	5		N,C OR S		ADVANCE RA	7.0 = UM +017,		
		(0.0)R						0.0)R		
0	.1361+05				0	.1364+05				
1-5-C	.6762+04	.4859+03 .2076+03	.2327+02	.3811+01	1~5 · C	.1888+05	.5107+04	.3324+04	.2167+03 1937+04	1284+03 4340+03
1-5.5	.2401+04	2556+038911+02	2708+02	7724-00	1~5.5	.4612+04	2505+04	3848+04 (0.14)R		-14344403
_		(0+14)R			G	.548p+04		(U+14)K		
0 1~5≀C	.52U6+04 .2476+0#	.2132+03 .4790+02	•7119+01	.7474-00	1-5•C	7810+04	.1951+04	.9649+03	.1063+03	~.2630+01
1-5.5	.1259+04	1317+031363+02	5092+01	3824-00	1-5.5	.2679+04	1264+04	7910+03	-,4498#03	8967+01
1-3/3	.1233.04	(0.325)R		10024 -0				(0.325)R		
0	.1393+04	(01000)			0	·1097+04				
1-5.C	4715+03	.1376+035026+02	4391+01	1388+01	1-5.C	.2026+04	+4040+03	6488+03	.1008+03	.8708+02
1-5.5	.9890+03	~.1003+03 .2909+02	·1076+02	.3755-00	1-5,5	.2257+04	7630+03	.1343+04	.7387+03	·2678+D3
		(0.55)R			_			(0.551R		
0 .	1603+02		4.00.00	01.70.01	0 1-5•C	4401+03 .7029+01	,3795+03	1354+04	.1878+03	.8416+02
1~5.C 1~5.S	1832+03 .7749+03	1665+038251+02 7756+02 .2305+02	1482+0í .1967+02	2470+01 .2195+01	1-5,5	2092+04	5214+03	1900+04	1468+04	1889+03
1-5/5	• //49+03	//56+02 .2305+02 (0.75)R	*1401405	.5142401	1-3/3	12072.04	13214103	(0.75)R		
n ,	3285+03	(01137)			0	-,4540+03				
	2159+03	·1285+035325+02	1373+02	1816+01	1-5.C	-,2515+03	.4785+03	-,9509+03	.1654+03	.3135+02
1-5.5	.3485+03	3474+02 .2139+01	.1477+02	.2376+01	1-5.5	.1190+04	2398+03	.1083+04	·1107+04	.1152+02
		(0.85)R			_			(0.85)R		
	-,2071+03					233B+03	1070107	4731+03	.8904+02	.1090+02
	1170+03	.6753+022585+02	7498+01	9269-00		1438+03 .5569+03	-2830+03 -1025+03	4965+03	.5662+03	1523+02
1-5.5	.1441+03	1434+021508+01	.7606+01	.1348+01	1-5.5	+2303+03	1052403	24703703	12402144	- 4 2 3 6 5 . 4 2
N. C DD E		AUVANCE RATIO: MU = 0.4			N.C OR	<	ADVANCE R	ATIO: MU = 1.0		
N.C OR S		ADVANCE KALLO, MO 2 01-	•		~~~~					
		(g.o)R						(0.0)R		
a	.1396+05	1010111			٥	·1578+05				t
1-5.C	.1107+05	·1354+04 ·9316+03	-1677+03	.3048+02	1-5+C	2326+05	•6888+04	.2394+04	2750+04	2370+03
1-5.5	.3557+04	6400+033970+03	-,1929+03	1015+02	1-5.5	.6717+04	4189+04	6680+04	5403+03	.1405+04
		(0.14)R			_			(0,14)R		
0	.5301+04				0 1~5,C	.6825+04 .1081+05	+2992+04	.9993+03	6719+03	.2565+01 *
1-5.C	.4064+04	.5507+03 .2163+03	-5191+02	.5946+01 4550+01	1~5,5	.3848+04	2424+04	1691+04	1970+03	4817+03
1-5.5	.1914+04	3368+035011+02 (0.325)R	3326+02	4550+01	1-3/3	*3540704	-12727707	(0.325)R		••••
0	.1345+04	(0.353)			٠ م	.1101+04				
1-5+C	.7997+03	.2877+032287+03	3003+02	9624+81	1-5+C	.3322+04	.6718+03	•7167+02	.1413+04	.2248+03
1-5.5	.1567+04	2673+03 .1470+03	8133+02	5781+01	1-5/5	.2494+04	1618+04	.2298+04	.1806+03	3819+03
2 0.0	12301.44	(0.55)R	***************************************					(0.551R		
a	9162+02				0	1084+04				
	2574+03	.3620+03 -,3902+03	1042+03	1414+02	1-5•C	.3938+03	.1273+03	3100+03	.3092+04	.3091+03
1-5/\$	·1319+04	2134+03 .1054+03	.1400+03	.2923+02	1-5,5	.1676+04	1134+04	.3839+04 (0.75)R	.6103+03	1117+04
		(0.751R			0	0076.07		(U./5/K		
	3679+03	1074107 - 041107	0.01.00	of E0 + 01		8535+03 9299+02	-1874+03	2333+03	.2414+04	.1897+03
1-5+C 1-5+S	3216+03	.3036+032611+03 9866+02 .4731-01	9691+02 .1016+03	8654+01 .3107+02	1-5,5	.7555+03	5317+03	+2417+04	5405+03	9271+03
7-012	•6364+03	9866+02 .4731-01 (0.85)R	*1010+03	"STOLLAS	1-3/3	*1333403	-13311103	(0.85)R		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
۵	2242+03	10.8578			٥	4141+83		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	1751+03	.1636+031286+03	~.5298+02	4113+01	1-5,C	6650+02	•1209+03	1149+03	·1239+04	.8989+02
1-5/5	.2742+03	4148+021353+02	.5172+02	.1756+02	1-5,5	,3207+03	2300+03	.1150+04	.2868+03	4832+03
	_		_		N/C OR	·	ADVANCE I	RATIO: MU = 1.4		
N.C OR		ADVANCE RATIO, MU = 0.	.5		7		NO PRINCE	W1101 MO - 111		
	_	(0.0)R						(0,0)R		
n	.1434+05	1010771			Q	.2208+05				
1-5.C	.1411+05	.2458+04 .1814+04	.3973+03	.3365+02	1-5,C	.2637+05	•8029+04	.1464+03	-,2258+04	.4539+04
1-5.5	4268+04	9499+031027+04		6273+02	1-5+5	.1442+05	2826+04		•9219+04	.5841+04
		(0.14)R			_			(0.14)R		
. 0	.5370+04				. 0	•1061+05		0045.07		
1-5,C	.5177+04	.9087+03 .4290+03		.1023+02	1-5.0	1324+05	•4109+04 <b>-</b> •1929+04	.9416+03 ~.9559+03	4881+03 -2507+04	.1309+04 .1775+04
1-5.5	.2288+04	-,5078+03 -,1358+03	9276+02	3246+01	1-5:\$	*8484+04	17454+04	(0.325)R	.2307704	11112404
. 0	.1233+04	(0.325)R			0	•2238+04		(0.353/14		
1-5.C	.1020+04	.3142+034386+03	7489+02	5660+01	1-5,0	4027+04	-1452+04	.1869+04	.1511+04	-,1690+04
1-5.5	.1925+04	-,4234+03 43929+03		4117+02	1-5.5	4668+04	1435+04	.2755+04	3462+04	2005+04
- 473		(0.55)R	*10,0,00	1471114	_			(0.55)R		
0	2131+03				0	1333+04				
1-5,C	3095+03	.4123+037796+03		1850+02	1-5.0		4274+03		.3086+04	3242+04
1-5.5	,1709+04	-,3699+03 ,3549+03	.3712+03	.5613+02	1-515	.2246+04	8813+03	·3905+04	5921+04	4048+04
		(0.75)R			_			(0.75)R		
8	4143+03				1.5.0	1121+04	.2071+03	.1009+04	.2301+04	2186+04
1~5.C	3877+03	•4038+03 -•5376+0		1675+02	1-5.C 1-5.S		3120+03		36A9+04	2780+04
1-5.5	.9039+03	~,1918+03 ,9176+0; (0,85)R	2 -2925+03	.3522+02	7-012	11305743		(0.85)R		
σ	2403+03	(U4857R			٥	-,5404+03		.5.05.1		
1-5,C	2104+03	.2270+032679+03	31111+03	9092+01		1206+03	.1047+03	.4463+03	.1158+04	-,1062+04
1-5.5	.4089+03	4596+02 41731+0		.1698+02	1-5.5		1134+03		-,1740+04	1358+04
	. ,					-			_	

#### (6) MP = 0.5 FP = 0.001 (FOR MU = 0.25:0.4:0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7:1.0:1.4)

			FP = 0.	000447(1+MU)**2	(FOR MU = 0.7	(+1.0+1.4)				·
N+C OR S		ADVANCE RATIO, MU =	<b>0.</b> 25		- N.C OR S		ADVANCE R	ATIO, MU = 0.7		
			·		~=====	•		40.010		
-0	+6241+05	(0.0)R			0	·4605+05		(0.0)R		
1-5.C	.2151+05	1190+04 .5789+	03 .2025+01	.2864+02	1-5,C	.4442+05	3083+04	•9220+04	.2628+04	.4769+04
1-5.5	.1141+05	.3040+03 .5090+	1061+03	.5677+02	1-5,5	.5926+04	•6155+04	1447+04	.4334+04	.3263+04
_		(0.14)R			0	.2107+04		(0.14)R		
0 1-5•C	.2746+04 .6739+03	.1110+034186+	+02 •1414+02	7395+01	1-5,C	1910+04	2033+02	•9266+02	2003+03	6789+03
1-5,5	.1179+04	1912+03 .2980+		6857+01		.1585+04	7278+03	.6949+03	-,7297+03	1965+03
		(0.325)R						(0.325)R		
.0	5348+02				. 0	1799+04	1005.00	- 4700100	4050.03	1713+04
1-5/C ·	1169+04 .1300+04	.5000+031296+ 2458+037277+		5166+01 1693+02	1-5,5	2660+04 .2558+04	.1045+04 2201+04	1702+04 -4962+03	1950+03 1514+04	1282+04
1-2/2	.1300+04	2458+037277+ (0.55)R	1003+02	1693+02	2-3/3	12500.04		(0.55)R		-12202.04
0 .	4244+03	10135711			0	<b></b> 1650+04				
1-5,C	2261+04	·8565+03 -·1089+		9331+01	1-5,C	3337+04	-2913+04	2957+04	4703+03	.2458+03
1-5.5	.9933+03	•1560+03 -•28664 (0.75)R	+034550+01	3048+01	1-5,5	.2667+04	2072+04	2556+04 (0.75)R	.4274+03	4704+03
o ·	2307+04	(U.75/K			0	1425+04		10115/1		
	1722+04	.7922+03 .2392+	+035175+02	1106+02		1909+04	<ul><li>3679+04</li></ul>	2493+04	3075+04	.3208+04
1-5.5	.2063+03	•3568+03 -•3585+	+038755+02	.2152+02	1-5,5	.1748+04	1706+04	5750+04 (0.85)R	.2393+04	.3039+04
0	0716100	(0.85)R			0	9875+03		(0.85/K		
	2316+04 8844+03	.4918+03 .2459+	+033674+02	1906+02		7969+03	-2565+04	1422+04	3014+04	.2919+04
	6690+02	·2530+0324834		.2218+02	1-5.5	.9422+03	1136+04	,4631+04	.2011+04	.3183+04
						-		ATIO: MU = 1.0		
N/C OR S		ADVANCE RATIO, MU =	0.4		N.C OR		ADVANCE H	M110+ M0 = 1+0		
,		(0.0)R						(0.0)R		
0	.5901+05				0	4376+05				
1-5·C	.3279+05	3321+04 .2166-	+043634+02	1693+01	1-5,C 1-5,S	.5602+05 .3714+04	•6528+03 •1280+05	•2133+05 -•1889+04	.9555+04 .6263+04	.1348+05 .8132+03
1-5.5	.1241+05	.8096+03 .1330- (0.14)R	+04 .3659+03	.3913+03	1-5/5	.3/14+04	·1280+05	1889+04 (0.14)R	.6263+04	,8132+03
0	.2443+04	(0.14)R			0	.2607+04		10121711		
1-5,C	.1043+04	•1468+03 -•1256·	+03 •9472+08	2100+02.	1-5.C	3542+04	•7613+03	•9956+03	8043+03	1534+04
1-5.5	.1549+04	4820+03 .1621	+038366+02	6544+02	1-5,5	.2160+04	7933+03	•1222+04· (0•325)R	1145+04	.2187+03
n	- 03::0:402	(0.325)R			0	3624+04		(U-325)K		
	23u4+03 1659+04	.1111+044851-	+03 •1186+03	.4062+02		4138+04	+1100+04	3828+04	-,2816+04	5703+04
1-5.5	.2105+04	7149+031183		1278+03	1-5,5	.2826+04	3577+04	<ul><li>1597+04</li></ul>	2679+04	.2452+03
		(0.55)R			_	7.176.16.		(0.55)R		
	5647+03 3053+04	.2182+041990·	+032116+03	.5164+02	0	3476+04 37u6+04	+071+03	7805+04	1015+04	.1298+03
	.1916+04	.9894+021046	+04 .2634+02	1643+02	1-5/5	. 1148+04	2928+04		1384+04	1047+04
		(0.75)R		720.0				(0.75)R		
	2153+04				0	1734+04				
	2358+04 .5711+03	.2040+04 .6651 .5884+03 ~.1622		2853+03 .1832+03		1456+04 .3810+03	.3344+02 2899+04	8157+04 3704+04	.2551+03 .5739+04	.1067+05 3088+04
1-212	.5/11+03	•5884+03 -•1622	TU4 -:4704703	1832403	1-5/5	13010103		(0.85)R	*3139104	
0	2123+04	1000711			0	7542+03				
	1200+04	•1241+04 •7559·		3414+03		4962+03	1826+02	5168+04	.2666+03	9457+04
1-5+5	2561+02	·4423+031224	+045748+03	.1673+03	1-5,5	·2887+03	2092+04	2586+04	. 4587+04	2514+04
N.C OR S	5	AUVANCE RATIO, MU =	0.5		N+C OR	5	AUVANCE	RATIO: MU = 1.4		
	-	•	• • • • • • • • • • • • • • • • • • • •							
		(0.0)R			0	.4741+05		(0.0)R		
0 1-5•C	.5546+05 .3983+05	4951+04 .3603	+044241+03	6179+02	1-5.C		8970+04	•1555+05	.6060+03	4916+04
1-5/5	.1067+05	.1424+04 .1362	+04 -7796+03	.1339+04	1-5:5	1804+03	· 2045+05	1756+05	.3764+04	9055+04
- 0.0		(0.14)R		*****	0	.4096+04		(0-14)R		
Ü	.2362+04				1~5,C		-2918+0	1892+04	8250+03	2452+03
1-5:C 1-5:S	.8893+03 .1580+04	.2874+032264 5075+03 .2922		.1046+02 2010+03	1-5.5		3997+0		-,1277+04	.1788+04
1-5/3	*1380+04	(0.325)R	-10233402	2010+03				(0.325)R	•==	
0	4854+03				0	4413+04				
	2189+04	·1423+047571		.1613+02	1-5,0	7733+04 .3966+04	-2901+04 4643+04	+2285+04 + .5740+04	5580+03 2043+04	2117+04 .4682+04
1-5·S	.2425+04	-:1124+04 :1018 (0:55)R	3+032394+03	4505+03	1-372	13,00,04	-14043+0	(0.55)R	~* £045704	.4002704
Q	1200+04				G	2766+04				
1-5.C	3003+04	•2646+D4 -•3785		3554+02		5151+04	1339+0	5992+04	.2250+04	4720+03
1-5.5	.2501+04	6137+031516	5+04 <b></b> 1658+03	.3755+02	1-5,5	.4126+03	1089+0	2043+04 (0.75)R	.3514+04	1682+04
o	1769+04	(0.75)R			0	1457+04		1011314		
	2741+04	.3265+04 .4801	1+031572+04	1042+03		1248+04	9184+0		.2709+04	.2950+04
1-5.5	.1227+04	.0044+033442		.8525+03	1-5.5	.8449+02	4103+0	1780+04	.7222+04	7473+04
O	1302 : 0:	(0.85)R			O	8777+03		(0.85)R		
	1396+04 1776+04	.2408+04 .5946	+031416+04	-,9218+02		2323+03	9615+0	3363+04	.1583+04	.2579+04
	.4337+03	.7913+032938		9218+02 .8335+03		3813+03	5326+0		.5031+04	5598+04

# 

				( ) = 000							
N+C OR S		ADVANCE RA	T10, MU = 0.25			N.C OR		ADVANCE F	ATIO+ MU = 0.7		
		(	0.0)R						(0.0)R		
0	·4265+05					0	.3274+05				
1-5+C 1-5+S	.1530+05 .8444+04	4903+03 .1857+03	•5168+03	.6972+02 .3569+02	.3604+02	1-5+C	.3313+05	•8465+03	•9546+04	4095+04	.4080+04
1-512	.8444+04		.3788+03 0.14)R	.3569+02	.2511+02	1-5.5	.6880+04	• 3989+04	.3137+03	1105+03	1891+04
0	.6351+04	,	0.147K			0	•5235+04		(0.14)R		
1-5+C	.1746+04	9769+02	+2661+01	.8669+01	3104+01	1-5.C	.4898+04	•3492+03	.8880+03	-2754+03	3779+03
1-5:5	.1830+04	1044+03	.4079+02	.3138+01	1817+01	1-5,5	2424+04	1936+03	•6587+03	2187+03	.2958+03
			0.325)R						(0.325)R	-12101705	12736403
0	.5777+03					0	<b></b> 1089+04				
1-5.C	1037+04	+4460+03	1341+03	1037+02	1422+02		2056+04	•8215+03	2202+04	1134+04	1635+04
1-5.5	.1389+04	2334+03	7611+02	8544+01	-,9705+01	1-5.5	.2791+04	2031+04	•5924+03	1703+03	,9713+03
0	7507.0	(	0.55)R						(0.55)R		
1-5.C	7527+0; 1724+04	.7182+03	6303+02	3920+02	5174-00	0	1777+04 2971+04	•2070+04	-077.00		
1-5.5	.1120+04	3118+02	2531+03	2451+02	2171+01	1-5,5	.2911+04	2284+04	3977+04	1742+04	.7440+02
	*1120.04		0.75)R	-12702702	-421/1701	2-5/3			1948+04 (0.75)R	•7543+03	4115+03
٥	-,1459+04	`	01/5/1			. 0	1029+04		(UI/SIK		
1-5.C	1473+04	•6637+03	•6032+02	5240+02	.1650+02		1847+04	2360+04	3670+04	1427+04	.2159+04
1-5.5	.3146+03	-2261+03	3283+03	3040+02	.8224+01	1-5.5	.1661+04	1310+04	3668+04	·1357+04	1718+04
		(	0.85)R						(0.85)R		
0	1025+04					• 0	4772+03				
	8514+03	• 3964+03	•6117+02	3471+02	.1345+02		9011+03	•1466+04	2143+04	<b></b> 7988+03	.1659+04
1-5·S	.3720+02	•1906+03	2160+03	1979+02	.7078+01	1-5+5	.7789+03	6140+03	2499+04	•9189+03	1259+04
N.C OR	-	AUVANCE DE	TIO, MU = ,0.4			N+C OR	_	A/MANGE 6			
77C OK .		ADVANCE RA	(110) MO - 10.5			77. OR		ADVANCE H	MATIO, MU = 1.0		
	-		0.0)R						(0.0)R		
0	.4095+05					٥	.3348+05		TOTOTA		
1-5.C	.2330+05	1667+04	•1971+04	.3736+03	.1786+03	1-5.C	4178+05	•4270+04	.1662+05	.5734+04	.1664+04
1-5.5	+9796+04	•7345+03	-1171+04	.1178+03	.2471+03	1-5.5	.7349+04	+6139+04	4624+04	2867+04	- 5557+04
		(	(0.14)R						(0.14)R	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10001104
0	.5975+04					0	-6208+04				
1-5.C	.2705+04	+1320+03	.2147+02	.7185+02	- 9511+01	1-5.C	.7749+04	1386+04	·2602+04	· .2191+03	4382+02
1-5,5	.2396+04	2675+03	•1805+03 (0.325)R	.5945+01	3288+02	1-5.5	-2963+04	1789+03	.1637+03	7770+03	.9237+03
0	.3022+03	,	U.3237K			0	2508+04		(0.325)R		
1-5.C	1454+04	.1024+04	5157+03	2738+02	6358+02		2948+04	•8291+03	3536+04	2006+04	7778+03
1-5:5	2229+04	7170+03	1837+03	3767+02	1131+03	1-5,5	.2726+04	3267+04	.2213+04	•5205+03	.3237+04
			(0.55)R						(0.55)R	13203405	. 3237404
0	902ó+03					٠.0	3453+04				
1-5.C	2416+04	·1785+04	3504+03	2830+03	1765+02	1-5.C	3571+04	•1966+03	7901+04	1266+04	4335+03
1-5,5	.1953+04	3378+03	9787+03	8913+02	.1724+07	1-5,5	•1718+T04	5132+04	1126+04	.3278+04	1312+04:
_		(	(0.75)R						(0.75)R		
. 0	1401+04	45.4.60				. 0	1694+04				
1-5,C 1-5,5	2041+04 .7216+03	1746+04	•5132+02 -•1404+04	4364+03	4830+02		1225+04	3911+03	7563+04	.2372+03	1594+03
1-3/3	./210+03	·2980+03	1404404 (0.85)R	1028+03	.1665+03	1-5.5	•7723+02	1238+04	6047+03	·4143+04	5109+04
0	9495+03	1	101837K			D	<b>7024+03</b>		(0.85)R		
	1174+04	·1063+04	•1102+03	2975+03	.4253+02		3340+03	-,3179+03	4361+04	7700.07	
1-5.5	.2039+03	·3070+03	9442+03	6570+02	1313+03		2060+03	~.4274+03	6239+03	•3742+03 •2555+04	1858+03
					12020.02			. — -	_ ~	1233704	3577+04
N,C OR		AUVANCE R	ATIO+ MU = 0.5			N.C OR		ADVANCE F	ATIO, MU = 1.4		
,			(0.0)R				-		(0.0)R		
0	.3940+05		(U.U/K			0	.4420+05				
1-5.C	.2759+05	2121+04	.3658+04	.8881+03	.8833+03	1-5.C	4451+05	ø782+04	.1224+05	1554+04	-,2936+04
1-5.5	.9116+04	2047+04	+1389+04	.4951+03	6255+03	1-5/5	.2014+05	4908+04	1528+05	2165+04	.2512+03
	*,220.04		(0.14)R		,				(0.14)R		
0	.5556+04					0	·1076+05				
1-5+C	.3179+04	.1061+03	•9588+02	.1348+03	9935+02	1-5.C	·8774+04	2538+04	.3216+04	9858+03	.2530+03
1-5,5	.2424+04	3153+03	•3614+03	5669+02	7490+02	1-5,5	·7528+04	-,2255+03	1583+04	1540+04	.9460+03
			(0.325)R			_			(0.325)R		
0	1085+03					0	2379+04 6475+04	.1077+04	- 104140*	120F.CT	.704.60
	1740+04	.1217+04	9237+03	1172+03	3795+03	1-5,5	.3900+04	-,2283+04	1061+04	•3205+03	.1796+04
1-5,5	.2567+04	1261+04	6368+02 (0.55)R	2257+03	2753+03	4-3/3	. 3700+04		•5843+04 (0•55)R	3299+03	.1081+04
n	1158+04		10.2214			0	3628+04		,		
	2758+04	.2369+04	9413+03	6246+03	.3079+02		6522+04	5532+03	4089+04	4945+04	.4959+03
1-5+5	.2518+04	9925+03	1626+04	3376+02	.2807+02	1-5,5	.1172+04	.7372+03		4901+04	1371+04
7-342	12320104	,20.00	(0.75)R			· <del>-</del>			(0.75)R		
0	1357+04					0	~.1132+04				
	2223+04	.2486+04	4313+03	8948+03	.5139+03		1531+04	1377+04	4070+04	·6236+04	9579+03
1-5.5	.1255+04	1336+03	2627+04	.2182+03	.3822+03	1-5,5	9404+03	•307B+04	.4273+04	•6698+04	2716+04
			(0.85)R				*****		(0.85)R		
0	8638+03					0	2697+03 1523+03	2010:27	- 0710165	3737.4"	
	1254+04	•1548+04	1644+03	6014+03	.4097+03		1523+03 8148+03	8949+03 .2084+04	2312+04 .2003+04	•3737+04 •4070+04	7500+03
1-5.5	.5249+03	• 4609+02	1806+04	.1831+03	.3037+03	4-313	*0140403	*********	•2003+04	********	1736+04

### FP = 0.01 (FOR MU'= 0.25.0.4.0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU © 0.7.1.0.1.4)

	FP = 0	.0u447(1+MU)**2	(FOR MU 0.7.1.0.1.4)		
N.C OR S	ADVANCE RATIO: MU = 0.25		N.C OR S	ADVANCE RATIO, MU = 0.7	
	(0.0)R			(0.0)0	
0 .2295+05			0 .2045+05	(0.0)R	
1-5.C .8401+04 1-5.S .5117+04	.3892+03 .3970+03 .5522+02 5742+027251+025545+02	.1665+02 ~.4083+01	1-5.C .2141+05	.5398+04 .5796+041168+03	4782+03
1 3/3 1311/104	(0.14)R	~.4005701	1-5:5 .7493+04	1215+045665+043621+04 (0.14)R	9731+03
0 .8764+04			0 .8106+04		
1-5.C .2842+04 1-5.5 .2518+04	.2507+03	.6330+01 .1338+01	1-5.C .8276+04	·2169+04 ·1606+04 ·7425+02	6748+02
1-3/3 (2310+04	(0.325)R	.1356+01	1-5.5 .4370+04	1116+041158+049037+03 (0.325)R	4725+02
0 .2320+04			0 .1427+04	(0.323/K	
1=5,C .2863+02 1=5,5 .1732+04	.3073+031038+033408+01 1950+03 .1992+02 .2450+02	.2063+01	1-5,C .1031+04	•7143+03 <b>-</b> •1397+04 •3126+03	.2694+03
1-3/3 .1/32+04	(0.55)R	.6161+01	1-5:5 .3655+04	1374+04 .1866+04 .1248+04 (0.55)R	.5329+03
04718+02			07920+03	(0.55/K	
1-5.C9368+03 1-5.S .1220+04	.4003+031572+032740+02 1328+033581+02 .3710+02	.1548+01 .7574+01	1-5.C1338+04	·4944+032899+04 .4944+03	.4352+03
1-3/3 11220704	(0.75)R	.7574+01	1-5:5 .3255+04	1089+04 .2357+04 .2612+04 (0.75)R	.3305+03
05560+03			06865+03	(01/5/R	
1-5.C7278+03 1-5.S .4904+03	-2853+039547+022820+02 2231+026245+02 -2454+02	.1257+01	1-5.C9997+03	-d364+032110+04 .3612+03	.2991+03
1-3/3 14904403	(0.85)R	.4538+01	1-5.5 .1771+04	4089+03 .1152+04 .2006+04 (0.85)R	3739+02
03495+03			03369+03	101837K	
1=5:C3708+03 1=5:S .1885+03	.1453+034516+021578+02 .1238+013825+02 .1207+02	.6836-00 .2150+01	1-5.C4831+03	•4680+031065+04 .1836+03	.1485+03
1-3/5 .1883+03	1238+013825+02 .1207+02	.2150+01	1-5,5 .8132+03	1471+03 .4858+03 .1032+04	6555+02
N+C OR S	AUVANCE RATIO: MU = 0.4		N+C OR S	ADVANCE RATIO, MU = 1.0	
	(0.4)				
.0 +2291+05	(0.0)R		0 .2220+05	(0.0)R	
1-5.C .1318+05	·9763+03 ·1624+04 ·2692+03	.3335+02	1-5+C .2457+05	.6345+04 .3962+045258+04	5066+03
1-5,\$ .6963+04	•3232+024125+034517+03 (0.14)R	9147+02	1-5.5 .9129+04	1948+041067+051801+04	.1983+04
0 .8665+04	(U.14)R		0 •9351+04	(0.14)R	
1-5.C .4487+04	•5587+03 •3397+03 •9112+02	.2984+01	1-5,C .1053+05	-2858+04 -1425+0413/2+04	.1080+02
1-5/5 .3570+04	2780+032900+028898+02 (0.325)R	2304+02	1-5.5 .5367+04	2010+042744+046800+03	.7031+03
0 .2149+04	(U+3251K		0 .1094+04	(0.325)R	
1-5.C .1194+03	•b280+034750+034788+02	1319+02	1-5.C -1709+04	•0456+035215+03 -2352+04	.4688+03
1-5.5 .2684+04	5758+03 -1292+03 -1572+03 (0-55)R	.2886+02	1-5.5 .3632+04	-:2479+04 .3449+04 .3865+03	6169+03
01822+03	(0.55)K		01816+04	(0.55)R	•
1-5,C1361+04	.8827+03 +.7467+032116+03	4874+01	1-5.01221+04	.3784+031555+04 .5151+04	.5916+03
1-5,5 .2039+04	4619+031119+03 -2688+03 (0.75)R	.7255+02	1-5/5 .2296+04	1932+04 .5594+04 .1401+04	1973+04
05996+03	(0.75/8		01237+04	(0.75)R	
1-5.C1063+04	•o717+03	.5502+01	1-5,C -,7931+03	•3228+031157+04 .3976+04	.3343+03
1-5:5 .8913+03	1407+032543+03 -1902+03 (0-85)R	.6293+02	1-5/5 .8910+03	7262+03 .3392+04 .1220+04	1709+04
03611+03	(U-837K		05738+03	(0.85)R	
1-5,C5416+03	.3497+032332+031168+03	.4399+01	1-5,C3440+03	·1810+035814+03 .2033+04	.1529+03
1-5:5 .3623+03	5849+021601+03 .9583+02	.3382+02	1-5.5 .3442+03	-, 2644+03 .1588+04 .6439+03	-,9015+03
N+C OR S	ADVANCE RATIO: MU = 0.5		NIC OR S	ADVANCE RATIO, MU = 1.4	
	(0.0)R				
0 •2278+05	(U. U/R		0 .2646+05	(0.0)R	
1-5,C .1625+05	·1963+04 ·3069+04 ·5405+03	.4908+02	1-5,C .2572+05	.7742+04 .6657+035986+04	.5929+04
1-5,S .7592+04	-2804+031212+041082+04 (0.14)R	2809+03	1-5:5 .1496+05	·9319+031076+05 .9292+04	5735+04
0 +8472+04	(0.147K		0 .1212+05	(0.14)R	
1-5.C .5530+04	.8934+03 .6773+03 .1778+03	3786+01	1-5.C .1148+05	·4148+04 ·1386+041476+04	.1833+04
1-5:5 .3971+04	3537+031120+032362+03 (0.325)R	3930+02	1-5,5 .9241+04	5631+032576+n" .2298+04	1758+04
0 .1854+04	(U.325)K		0 •1593+04	(0.325)R	
1-5.C .1606+03	•7060+03 <b>-</b> •8685+03 <b>-</b> •9549+02	2477+02	1-5,C .1156+04	·1813+04 ·2293+04 ·3176+04	1934+04
1-5.5 .3154+04	9220+03 -4428+03 -3668+03	.1202+03	1-5.5 .5632+04	1697+04 -4300+043909+04	2083+04
04036+03	(0.55)R		02324+04	(0.55)R	
1-5.C1604+04	-1044+041507+043928+03	.2053+02	1-5.C2110+04	.8888+03 .2203+04 .6257+04	3917+04
1-5.5 .2614+04	8497+03 .6125+02 .7422+03	.1571+03	1-5,5 .2810+04	1091+04 -6026+046247+D4	4438+04
06609+03	(0.75)R		01477+04	(0.75)R	
1-5.C1229+04	.8645+031047+043831+03	.4604+02	1-5.C1031+04	•4716+03 •10/5+04 •4487+04	-,2672+04
1-5+5 .1283+04	3483+033152+03 .5833+03	.8942+02	1-5.5 .8106+03	8956+02 -3170+043768+04	3171+04
03755+03	(0.85)R		06558+03	(0.85)R	
1-5.06213+03	·4623+035237+032120+03	.2892+02	1-5,C3902+03	·2262+03 ·4619+03 ·2229+04	1302+04
1-5,5 .5588+03	1316+032241+03 .3046+03	.4116+02	1-5/5 .2537+03	·6146+02 ·1388+041756+04	1570+04

## TABLE 7. ALS CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (A) MP ± 0.1 FP = 0.801 (FOR MU = 0.25,0.4,0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

				FP =	0.Duu447(1+MU)**2	(FOR MU = 0.	7,1.0,1.4)				
N.C OR S		AUVANCE RA	T10, MU = 0.25			N.C UR		AUVANCE H	ATIO: MU = 0.7		
		,	0.0)R				-		(u.0)R		
8	.2146+03	,	0.07K			U	·1974+03		COLOTA		
1-5.C	<b>.</b> 5830+64	.3046+03	.5379+02	-,9929+01	,3619+0Z		•7UL7+U4	.1604+04		3595+01	.1381+03
1-5.5	.3360+05	1461+03	4611+02	÷.2398+62	7180+02	1-5,5	• 3000+05	932+03	.7035+03 (u.14)R	.1038+03	.3380+03
a	.7662+01	,	0.141R			u	.3379+01		(0.14)8		
	.2650+03	·1882+02	.4264+01	.4825+61	4039+81		4071+03	<ul><li>Jou3+02</li></ul>	.9252+01	2630+01	2032+02
	.1545+04	1240+02	·4985-60	1560+81	.7487+01	1-5.5	.2120+04	2847+02	-1192+02	.4043-00	4257+02
۰ -	4010.04	(	0.325)R			o	2667+02		(U.325)R		
	.6810+01 .5361+01	-1110+02	.2150+01	.1020+02	7504+01		8320+01	3169+02	4128+02	•6812+01	4784+02
	.9115+02	8119+01	.5032+01	.9667-01	.1773+02	1-5.5	·1090+03	7983+01	1061+03	1526+02	1133+03
_		1	0.55TR			t:	- 20 (0.0)		(U.551R		
	.1092+02 .3691+01	¢2322+82	4814+01	9552-00	.2668+01		2829+02 2361+02	*********	5640+02	.2162+02	.2012+02
	1253+03	-+71H3+61	.6763+01	.5365+01	2628-08	1-5.5	1057+05	405+02	1955+03	1924+02	.1422+02
		1	0.751R						(0.757R		
	.6609+01 .3239+02	·4272+82	1354+02	-,2517+02	.1195+02	υ 1 <b>-</b> 5•Γ	.1052+01 3565+02	•1031+03	1582+02	.4287+01	.1150+03
	.2860+02	1853+02	.1006+02	.1207+02	2595+02	1-5,5	25_5+02	506+02	2001+03	1528+02	.2126+03
			10.857R						(U-851R		• • • • • • • • • • • • • • • • • • • •
	.2430+01	3440440	1185+02	2539+02	.1006+02	1-6	2/ba+02	·1581+U3	.4449+01	5211+01	.1014+03
1-5/6 -	.3225+02 .1788+02	-3664+62 1834+02	-8381+01	•1037+02	2500+02	1-5,5	3020+02	0016+02		9033+01	.1945+03
				********						*******	12545746
N.E OR S		AUVANCE RA	ATIO, MU ± 0.4			HIC OR S		AJVANCE R	ATIO, MU = 1.0		
			(0.0)R				-		(U.O)K		
	.1491+03	,				Ü	•6249+03		10.071		
	.5941+04	•5060+03	•76o3+02	1105+02			.7613+04	+1140+04	.1147+04	•9610+02	.8906+03
1-5.5	.3382+05	1287+63	•3056+62 {0•147R	7582+01	4860+02	1-5,5	.2747+45	311+03	.1381+04	.2399+03	.3321+03
	.28b8+01	'	(U.14)K			n	.3852402		(U-14)R		
	2690+03	.2617+02		.5716+01	3465+01	1-5.0	.7659+ús	.1240+03	.4848+02	1118+02	1195+03
1-5.5	.1557+04	1459+02	+4529+01	1470-00	.6109+01	1-5.5	.284/+04	-+0284+02	.4790+02	1410-00	3702+02
	1210+02		(0.325)R			ú	60009+02		(0.325)R		
	.2795+01	+4730+01	.1108+01	.1201+82	6726+01		.2161+02	0278+01	1945+03	3134+02	3566+03
	.1001+03	1330+02	.1616+01	.1330+01	.1423+02	1-515	.2074+03	3296+01	2572+03	5453+02	1088+03
	1014.0.		(U.551R			n	<b>.</b>		(U.55)R		
	1914+02 4758+01	•2215+02	6030+01	1062+91	.2974+01		-,7040+UZ -,263U+UZ	•9096+01	3511+03	.3389+01	.7875+02
	.1418+03	1310+02	5483+01	.6965+01	.2035+01		·14ud+03	041+02	4251+03	7086+02	6941+01
_			(0.751R						10.75)R		
	1313+02 2786+02	• 0550+02	5335+01	2934+02	.9421+01	1-5-6	1573+02 6275+02	• 1460+03	3502+03	.3336+02	.6667+03
	.3929+02	2835+02	8739-00	.1470+02		1-5,5	-2572+01	0060+02		÷6329+02	.7939+02
			(8.857R						(U.85)R		
	6054+01 2708+02	+0254+82	2154+01	2960+0Z	.7310+01	1-6-6	-+2011+07 2011+01		0107.07	24-7-02	D400.07
	1364+02	2700+02	·2630+01	.1265+02		1-5/6	3473+02	/356+03 /390+02	2196+03 2253+03	.2633+02 3935+02	.5609+03 .6405+02
					******						*0409402
N.C OR S		ADVANCE R	ATIO, MU = 0.5			N.E OH		ALVANCE I	RATIO: MU ± 1.4		
			(8.0)R						(U.O)R		
	.1427+03					)	.2025+04				
1-5.C	.6243+04	+6519+03	•1550+03 •2674+03	5112+02 .3623+02		1-5,C 1-5,S	.7651+J4 .2370+J5	+5766+03		7415+01	.2067+03
1-5.5	.3393+05	1837+03	(0.147R	•3023+UZ	.3400402	1-3/3	.23/0+05	4289+03	•3853+03 {0•147R	7979+01	4376+03
	5977-00					0	.2557+03				
	.2808+03	-1877+02	.2499-00	9406+01		1-5.6	.1065+04	-1461+03		2612+02	4443+02
1-5.5	.1502+04	1087+02	2720+01 (0.325)R	1849+01	5067+01	1-5.5	.3614+04	1184+03	•6379+02 (0•325)R	5328+01	.5294+02
	1501+02					Ü	4535+02		. U-JEJ/N		
1-5.C ·	3494+01	9775+01	1385+02	.2138+02	.1769+01		15-2+02	· 1186+03		2801+02	~.1121+03
1-5.5	.1146+03	6561+01	3674+02 (0.557R	5997+01	+.1037+02	1-5.5	•4293+03	0901+02	5764+02 (0.55)R	2437+02	.2080+03
	1345+02		(0.33)K			0	1504+03		(0.35)K		
1-5.C -	1299+02	+436+02	1021+02	.4288+01	.3595+01	1-5,0	7440+02	•1586+03		.6299+01	,2490+02
1-5.5	-1171+05	2025+02	5431+62 (9.75)R	•5329-60	.6361+01	1-5.5	+1299+03	0268+02	1204+03	.3306+01	9701+02
а .	3291+01		(W. /D/K			o '	1147+02		(u.75)R		
	2491+02	-1120+03	·1656+01	±.2738+02	.4711+01	1-5.0	4000+00	+2227+03	6449+03	1767+01	.1416+03
	.363++02	2885+02	5420+02	.1141+62		1-5.5	1170+02	1295+03	.2139+02	.7855+02	5041+03
	.9472-0U		(0.857R			0	6027+02		(u.851R		
1-5,6	-,2054+02	• 4716+02	.4844+01	2849+02	.3546+01		2550+02	·1576+03	3738+03	6988+01	.1059+03
	.9518-0u	227+02	3673+02	.1115+02			3077+02	9719+02		.6682+02	3959+03

### TABLE 7. A15 CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

### (B) MP ± 0.1 FF = 0.8025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		// = 0:0011E(1/10)++			
N.C OR S	AUVANCE RATIO: MU = 0.25		NIC ON S	AUVANCE RATIO: MU = 0.7	
	(0.0)R			(0.0)R	
U .11∠9+03			0 .22ახ+0კ		
1-5.6 .6027+04	• 3553+03 • 1899+02	7830+015098+01	1-5.0 .7325+04	·0967+03 ·1115+04	.7543+02 .4482+02
1-5.5 .2204+85	<108+ <b>03</b> .2828+02	2115+02 .8274+01	1-5,5 .2022+05	4647+03 .4977+03	.6576+021709+03
0 -14co+0c	(8-147R		0 .1755+02	(0.14)R	
0 •14∠0+0∠ 1∸5•C •8799+U3	.4771+02 .2354+01	1075+012182+01	1-5,C .1340+04	·1461+83 ·9999+02	.1116+027095+01
1-5/5 +3362+04	3441+021798+01	-,5226+01 -,7190+01	1-5.5 .3794+04	4855+02	.1555+01 .1785+02
2 5/5 15002:04	(0.325)R	17220		(0.325)R	
04431+01			u <b></b> 4540+0∠		
1-5,6 .7260+02	•±062+01 •5055-00	.8243-001918+01	1-5.0 .1537+03	•>772+U1 -•2552+O3	1773+022546+02
1-5.5 .4213+03	1302+021569+02	4059+011379+02	1-5:5 .5905+03	3791+821081+83 {0.551R	2261+02 .7361+02
	(0.557R		04146+02	(U.551K	
089c4+01 1-5:C79.5+01	•1778+02 •4557+01	.3659+01 .2943+01	1-5:0 .1074+02	.6703+024271+03	±.6397+822943-00
1-5/5 \1947+03	1865+022613+02	÷.3457-00 .3252+01	1-5/5 .2400+03	0366+021950+83	2571+023261+02
1 0.0	(0.757R			(0.757R	
08451+01			01197+02	_	
1-5.C3111+02	•3253+02 •7235+ <del>0</del> 1	.5047+01 .7150+01	1-5.C1117+02	1452+033724+03	7940+02 .2767+02
1-5/5 .8249+02	1608+022467+02 (0.857R	.4019+01 .2197+02	1-5.5 .9984+02	-:0666+02 -:1793+03 (0.857R	1466+021329+03
5060+01	(W-85)K		81957+01	(0.65)//	
1=5,62253+02	.2290+82 .4964+01	.3365+015206+01	1-5.C9590+U1	.9741+022133+03	5026+02 .2149+02
1-5.5 .3274+02	1102+021484+02	.3313+01 .1713+02	1-5,5 .3949+02	+060+821045+03	6837+019725+02
NE OR S	AUVANCE RATIO: MU ± 0.4		N.C OK S	AUVANCE RATIO: MU = 1.0	
			****	(0.0)R	
6 .5090+02	(0.0)R		8 .7356+03	(U.U/K	
6 .5090+02 1-5:C .6105+04	•5965+03 •8653+02	4542+01 .6028+01	1-5,0 .8020+04	·1072+04 ·2169+04	.1290+036579+02
1-5.5 .2278+05	2376+83 .1464+83	,5120+01 .8158+01	1-5,5 .1736+05	6044+831341+03	1840+033011+03
1 0/3 122/0/03	(8.147R			(0.147R	
0 .1907+01			ر 1250+0ع.		<u>.</u> .
1-5,C .8894+03	•7653+62 •7755+01	.6096-002103+01	1-5+C .1800+04	-2414+03 -2747+03	.3804+019991+01
1-5.5 .338/+04	1999+82 .1011+02	1867+013925+01	1-5.5 .4178+04	1786+031390+02 {0.325}R	÷.2431+82 .1960+02
61316+02	(0.325)R		08271+02	(0.325)#	
1-5,0 .6998+02	6691+819025+81	.2662+01 1.4195+01	1-5.0 .2701+03	• 3739+02 -• 5521+03	2.6125+02 .1139+02
1-5,5 .4375+03	1856+02 3040+02	÷.5231+816410+01	1-5,5 .7933+03	1162+03 .5700+02	.1333+02 .1260+03
	{0.557R			(9.557R	
01897+02			01145+03		
1-5,C1049+02	·1960+02 -·7329+61	.1855+01 .4195+01	1-5.C .4135+02	-6128+029554+03	8782+021174+02
1-5:5 .21:2+03	2905+825752+02	3395+81 .1779+01	1-5,5 .2402+03	1460+03 .1328+03 (0.757R	.6587+026444+02
61545+02	(0.757R		06667+02	(0.757K	
1-5:03112+02	·4757+825096-80	1275-00 .1208+02	1-5,0 .1036+02	11098+037920+03	6469+022598+02
1-5.5 .1005+03	2918+825828+82	.6158-08 .1309+02	1-5.5 .5335+02	1156+03 .1333+03	.8362+022203+03
	(0.857R			10.857R	
08763+01			03123+02		_
1-5.02203+02	.3475+02 .1034+01	4659-80 .d953+01	1-5.C .4769+01	·0910+824366+03	3417+022039+02
1-5,5 .4315+02	1796+023587+02	61162+81 .1024+92	1-5,5 .9824+01	o315+02 .7793+02	.5112+821531+03
N.E OR S	AUVANCE RATIO, MU = 8.5		N. C UR S	AUVANCE RATIO: MU = 1.4	
	MO 4 1101 MO = 013		****		
	(0.0)R			(9.0)R	
0 .7139+02			0 •1775+04 1-5:C •7771+04	1005106 405333	
1-5.0 .6402+04	• 0575+03 • 3755+03	-49577+01 ,6798+02	1-5/5 .1484+05	-1025+04 -1826+04 4200+631514+04	2.2212+03 +.1801+03
1-5.5 .2200+05	3086+03 -3774+03 (0.1478	·4881+025274+02	1-3/3 11404405	4208+831514+04 (0.147R	4.3612+82 .7180+02
6 •7629-00	10.147K		0 .4554+03	1407414	
1-5.6 .9320+03	•8196+02 •2283+02	.4200+018845+01	1+5,C .2254+04	.3299+03 .3418+63	5022+027539+06
1-5.5 .3407+04	4870+02 -2260+02	.5325-00 .9233+01	1-5:5 .4552+04	2186+0321U1+03	1.2133+02 .3990+02
	(0.325)R		A	(0.325)R	
01966+02			06739+02 1∸5⋅C .3207+03	13/0+67 - 41/1/2	####:## J
1-5.0 .7354+02	3026+017486+62	.7950+01 ±.2999+02	1-5/5 .1117+04	•1360+03 -•4166+03 ••<223+03 •5609+03	·5121+02 .6492+02
1-5:5 .4452+03	1666+028213+02 (0.557R	±.1507+62 .2029+62	2 3.3 1111114	(0.557R	.3053+02 .9030+01
01704+02	(U+35/K		01842+03	1000111	
1-5.65468+01	••U38+02 -•1088+63	7612+01 .8284+01	1-5,C4370+02	+153B+037456+03	(1496+034325+02
1-5:5 .2088+03	2976+621379+63	1915+627092+61	1-5,5 .3148+03	1847+63 .9979+63	+1957+03 9855+0g
	(0.757R		A =.1202+04	(0.757R	
04249+01			81202+03 1-5:C2922+02	1005103 - 5767157	
1-5:02361+02	.1121+038835+62		1-5/5 -5050+02	•1295+03 -•5709+03 -•/508+02 •7966+03	.1472+031187+03
1-5:5 .8029+02	3334+821284+83 {8.857R	1351+823665+82	- 5.5 15050702	(0.857R	42327+03 ±.1356+03
09629-01	10.85/K		05851+02	1310371	
1-5,0 -,1667+02	•7897+82 -·5014+82	1656+02 .3913+02	1-5.C9210+01	·7124+023004+63	.8352+827829+02
1-5.5 .2825+02	2122+027684+02	7174+012826+02	1-5.5 .2090+01	∠799+U2 .4258+O3	61380+838249+02

### TABLE 7. A'15 CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (C) MP ± 0.1 FP = 0.01 (POR MU = 0.25.0.4.0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7\*1.0\*1.4)

N.C OK S	AUVANCE RATIO: MU = 0.25		N.C OR S	AUVANCE RATIO: MU = 8.7	
	· <del>- •</del>				
0 .2811+02	(0.0)R		0 .1560+03	(0.0)R	
1-5,C -6036+04 -1067+05	3111+03 7826+62 2	173+82 +.2050+02 511+02 +.2022+02	1+5.C .7119+04 1-5.S .9330+04	.9551+03 -1751+03 0415+034877+03	1,8449+825379+02 1,2446+825669+02
0 .6237+01 1-5,C .2323+04	(0.147R -1115+03 -3262+01 -8	154+017822+01	6 .3438+02 1-5,C .3067+04	(0.147R .3952+03 .6945+02	1245+02 1245+02
1-5.5 .4241+04		164+028746+01	1-5.5 .4103+04	3820+031063+03 (8.325+R	±49184+018223+01
08542+01		M	04464+05		
1-5,0 .6920+03 1-5,5 .1386+04	.3781+027148+011 5327+02 .9084+014 {0.557R	911+012008+01 871+014331+01	1-5,C .1037+04 1-5,5 .15,9+04	.1417+03 .1519+02 1748+03 .1774+03 [0.557R	.7533+81 .1908+92
01010+02			05505+02		
1-5.5 .5110+03		.2518-00 .198+012494+01	1-9,C .3129+03 1-9,S .5996+03	.1419+03 .3759+01 -:1178+03 .3003+03	45569+02 .6861+01 43158+02 .6355+01
012∪7+0∠			02460+02		
1-5.C .3828+02 1-5.S .1780+03		925-00 .7083-00 888-009347-06	1-5,6 .8323+02 1+5,5 .2085+03	.1276+03 .4532+01 0922+02 .2028+03 [0.8578	.3910+023688+01 .3056+029141+01
06194+01			09771+01	10105711	
1-5.6 .9498+01 1-5.5 .7037+02		467-00 .4293-08 .596-00 4.3501-08	1-5.C .2850+02 1-5.S .8161+02	.7008+02 .2835+01 3364+02 .9988+82	.1952+02
N.C OK S	AJVANCE RATIO: MU ± 0.4		N.E OR S	AUVANCE RATIO: MU = 1.6	
	(0.0)R			(0.0)R	
0 .1005+01	1447107 AC10100	Wat . 60	0 •5579+03		A . W
1-5:0 .6122+64		431+021742+02 5296+021929+02	1-5.C .77c1+04 1-5.S .787c+04	-1213+04 -1487+03 1258+046277+03	4.6965+823458+02 45109+83 -1106+93
	(0.14)R	2790102 -,1727102		(0.147R	45109+ <b>8</b> 3 .1 <b>106+9</b> 3
09502+01			د2045+0ء		
1-5+C .2353+04 1-5+5 .4297+04		819+016488+01 1041+827330+01	1-5,C .3774+04 1-5,S .3912+04	.5782+83 .9915+82 6630+831538+83 (8.325)R	2488+021126+02 -1258+03 -3427+02
02410+02	1		03769+0≥		
1-5,C .6908+03 1-5,S .1421+04		1116+011504+01 2792+011867+01	1-5,C -1457+04 1-5,S -1640+04	.2363+03 .9738+02 3659+03 .2426+03 (0.557R	.3415+023693+01 1816+034371+02
03238+02			01155+05	10100111	
1-5:C .1883+03		2504+01 .4342-01	1-5,C .47c5+03	•1664+03 •1113+03	.1141+032163+02
1-5:5 -5439+03	5323+02 .4981+02 .1 (4.757R	1016+02 .1323-06	1-5:5 +6182+03 0 -:6503+02	∠457+83 .4277+83 (0.757R	1.2978+831167+83
1-5.6 .4021+02		3005+01 .2440-00	1-5.C .1315+03	·1204+03 ·7388+02	.1030+03 -,2465+02
1-5:5 .1990+03	3358+02 .3151+02 .6 (0.85)R	9211-00	1-5.5 .1860+03	1291+03 -2861+83 (0.857R	4.1859+839689+92
1-5:0 .1063+02	•<019+02 -•9000+01 ±•;	1755+01 .1417-00	029o2+02 1-5:C .4654+02	•u271+02 •3643+02	+5495+821388+02
1-5.5 .8061+02 N.E OK S	1678+02 .1519+08 .4	615+01 .3177-00	1-5.5 .6628+02	5955+82 -1394+83	2.8819+025056+02
N.C OK S	AUVANCE RATIO, MU = 0.5		N.C OK S	ADVANCE RATIO, MU = 1.4	
	(0.0)R			(6.0)R	
U .2817+0∠ 1-5:0 .6459+04	•0524+03 •1776+03 -•	5475+023261+02	0 •1521+04		.1140+04 .3715+03
1-5.5 .1103+05		4704+013428+02	1-5+C +0110+04 1-5+S +7290+04	.1335+04 .1561+03 1466+043244+03 (0.147R	.7441+03 ,5304+03
04398+01 1-5:C .2472+04	.<404+63 .4788+02	8767+017397+01	0 .7196+03		
1-5/5 .4317+04	2185+036847+02	6267+016413+01	1-5,C .4391+04 1-5,S .4057+04	•7509+03 •1771+03 ••9209+03 ••3579+82	.3199+83 .1038+83 .2263+83 .1591+03
62854+02	(0.325)R			(0.325)R	•
1-5.0 .7203+03	./630+022830+02 .	1798+82 .5299+01	# .1274+03 1∸5∗C .1870+04	•3953+03 •2373+83	3619+031588+93
1-5.5 .1431+04		6284+01 .7276+01	1-5:C .1870+04 1-5:S .1869+04	0149+03 .2524+03 (0.55)R	2239+831691+83
02849+02	- 5007183	1407.40 080-01	61274+03		
1-5:0 .19:3+03 1-5:5 .53:00+03		1683+02 .2593+01 4447+01 .1130+01	1-5.0 .6167+03 1-5.5 .7101+03	.∠569+83 .2338+83 4153+83 .3908+03 (0.757R	-,6239+03 .3189+03 -,4087+03 -,3123+03
01243+02			01001+03		
1-5:0 .4301+02		4513+612442+01	1-5.C .1600+03	·1450+03 ·1245+03	3651+032254+03
1-5:5 .1a52+U3 b49v9+O1	3620+02 -1344+03 6 (0.857R	9841+815784+01	1=5,5 .1951+05	1953+83 .2510+83 (0.857R	+.2554+031 <del>594+</del> 03
1-5.0 .1250+02	•5248+021927+62 .	9247-002026+01	048∠3+0≥ 1-5+C .5772+0∠	•6918+82 •5601+82	4.1676+031113+03
1-5.5 .7100+02		6158+014127+01	1-5/5 +6357+02		1.1204+03 +.9485+03
		V			

## TABLE 7. A15 CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (D) MP = 0.3 Fr = 0.001 (FOR MU = 0.25,0.4.0.5) Fr = 0.000447(1+MU)++2 (FOR MU = 0.7.1.0.1.4)

14,C UK		AJVANCE I	RATIO, MU = 0.25			N.C OK		AUVANCE	RATIO, MU = 0.7		
			(U.O)R						(U.O)R		
U	5560+02					0	د4717+0				
	. 3507+04	· ∠767+03		.3741+02	.3106+01	1-5+6	.4054+04	- 3422+83		·1150+03	.1720+03
7-212.	•3505+05	•5899+02	•1857+83 (U•14)R	•9520+02	.7217+02	1-5.5	.3142+05	393+03	-2723+03 (0.14)R	.1637+03	.2011+03
U	37-1+01					0	.1201+02		10021711		
1-5,6	.1400+03	.1397+02	2460+01	2530+01	.2236+01	1-5,6	.2374+03	+4367+02	-1809+02	6504+01	2652+02
1-5,5	·1012404	0457+01		4672-00	2171+01	1-5.5	.2159+04	5631+02		2046+02	2872+02
			(U.325)R						(0.325)R		122,2,02
Ü	7019+01					U	4290+02				
	0244+02	. 0541+01	9106+01	4050+01	.7019+01	1-5.0	7834+02	• 4749+02	6620+02	1450+02	6452+02
1-2,2	.40c0+Uz	1206+02		8646+01	9157+01	1-5.5	.1003+03	+110+02	3829+02	÷,5200+02	7244+02
			(0.557R						(0.55)R		
U	1557+02					0	4271+02				
1-5,0	1002+63	•<580+02	.6832+01	.8461+01	.6511+01		950U+0∠	+1147+03		-,9508+01	.1761+02
1-5.5	.1203+03	·~510+01		3411+01	.1051+01	1-5.5	•1619+05	7027+01	1482+03	5179+01	4739+01
d			(0.757R						(0.751R		
	6550+01 7057+02		2502102			6	1354+02				
	-1/03/1402	-+1115+01	.2992+02 3363+02	.1709+02 .5565+01	÷.7989+01 .1723+02	1-5,5	5969+UZ -3735+0Z	·<120+63		5005+02	.4416+03
1-313	. 3033+01		(0.851R	+2262+01	.1723+02	1-5/5	.3/35+02	4197+02	2197+03 (0.851R	·5228+02	.1378+03
D	3693-00		10.0371			6	4031-00		(0.85/K		
1-5.0	4174+02	•5U35+02	.2748+02	+1325+02	1125+02	1-5.6	2890+02	-1723+03	2317+02	5017+02	.1275+03
	38/4+02	5632+01	2331+02	+6349+81	.1667+02		1590+02	4674+82		44784+02	.1334+03
				10047.01	.100,102		.,,,,,,,		-11010400	********	.1334+03
4+C OH		AUVANCE F	RATIO: MU = 0.4			N.C OK		AUVANCE I	RATIO: MU = 1.6		
	-		(0.0)R			**	-		10.010		
0	2144+03		101071			е	.5556+03		(0.0)R		
1-5.6	.3097+04	-5119+03	. 1998+03	+6300+02	.1639+02	1-5,0	.4819+04	. 9446+03	.1507+04	•6266+03	.9659+03
1-5.5	.3503+05	+1356+03	•1998+03 •3710+03	-2064+03	.1460+03	1-5,5	.2769+05	2995+03	•6203+03	.4153+03	.4197+03
			(0.14)R	-2004.00	11400.00	- 0,0		-12773103	(0.147R	•4155+05	.419/403
U	1420+02					0	-2136+02				
	.1452+03	• < 369+02	1234+01	1850-00	.4444+01	1-5,C	.4160+03	1258+03	.8178+62	2643+02	1065+03
1-5,5	·1619+04	1044+02	.1035+02	1Z23+01	3946+01	1-5.5	.2894+04	÷.5900+02		·7954+01	9055+01
u			(u.325)R						(0.325)R		• • • • •
	-,16a7+02 -,6435+02					. 8	9366+02				
1-5/5	.1152+03	.3629+01 -:2038+02	2111+02 2733+02	1402+01 1719+02	.9939+01	1-5.5	1212+03	-2356+02	2404+03	1569+03	3636+03
1-3/3	11132703		(0.5578	1/19+02	1664+02	1-3/3	.2/32+03	• +223+01	5031+82 (0.557R	÷.7388+02	7081+02
Ú	2524+02		(0.337)			e	106++03		(0.55)R		
	1013+03	· 5332+02	1659+01	+1129+02	.1115+02		1293+03	9198+01	4648+03	±.7922+02	.4554+02
1-5.5	.1464+03	-, <421+01	6744+02	9760+01	.1677+01		.1443+03	•0364+82		7545+02	7531+02
			(0.757R		***************************************			10001102	(0.751R	-11045102	-, 1551402
0	8150+01					0	~·2339+02				
	7935+02	• 0520+02	.4626+02	+1867+02	.1023+01	1-5.0	9425+02	.7219+02	4275+03	·1503+02	.6523+03
1-5,5	.1651+02	1485+02	8555+02	7414+01	.2486+02	1-5,5	6369+01	4908+02	2693+03	3662+02	1666+03
e	207		(U.857R						(0.857R		
	.2076+01 4278+02	. 744 8+60	4.63.6163	.707.00		0	.9314+01				
1-5.5	3840+02	* 7665+02 ~•1972+02	.4818+82 6199+02	.1393+02 6324+01	3246+01 .2319+02	1-5/0	5038+02	.7674+02	2932+03	.2515+02	.5599+03
- 0.5	15010102		*0199.02	-40324401	12317402	1-3/5	4000+02	7363+82	1698+03	±.1444+02	1400+03
N.C OK S	5	AUVANCE R	RATIO, MU ± 0.5			N.C OR	c	A			
	-					N/C OK		ADVANCE P	ATIO, MU = 1.4		
_			(U.O)R						(0.0)R		
0 1-5.0	-+2227+03					0	.1415+04				
	.3949+04	·b333+03	-3951+03	.1032+83	.8120+02	1-5.6	3897+04	1136+02	•9092+03	4B393+02	.2691+03
1-5,5	.3504+05	+>316+82	.5491+03 (0.147R	£2924+03	.2776+03	1-5.5	.23/0+05	1032+02	5361+03	.8052+01	2662+03
0	1728+02		(0.14)K						(0.147R		
1-5.C	.1545+03	+2933+02	7517-00	•9631-00	1260+01	. 6	.1404+03				
1-5.5	.1021+04	1087+02		6614-00	1467+02	1~5,C 1~5,S	.3975+03	.1081+63	-1929+03	±.1098+02	2309+02
			(0.325)R		*1107.102	1-5/5	:3612+04	1209+03	.3925+02 (q.325)R	1,2431+0E	.6769+02
8	2241+02					θ	1240+03		(4.325)K		
	6714+02	1035+01	4738+02	5762-00	4418+01		2000+03	.4063+63	-,9521+62	2413+02	±.1089+03
1-5.5	.1201+03	+•au45+n1		-12267+02	4557+02	1-5.5	.3900+03	1088+03		±.3678+62	.1659+03
0	- 0513		(0.557R						18.557R	300,0.VE	*1007700
	2519+02	40 % F / 2.2		22.0.0.		6	1242+03				
1-5,6	9905+0Z	• 3945+02 • 1770+02	4124+02 1209+63	.7350+81	.1412+02	1-5.C	2238+03	.1086+03	3448+83	.5310+62	1846+01
1-5/3	.1390103		1209+63 (0.7578	֥2388+62	÷.1855+01	1-5.5	.6644+02	.9344+82	.6051+62	.1039+83	9076+02
. 8	.7179+01		10.75/R			•	400		(8.757R		
	7248+02	+1365+03	.2437+62	÷+4666+01	.3117+02	θ 1÷5.6	695e+02 93<5+02		-5		
	5668+01	5083+01	1425+03	÷.4385+02	.6196+02	1-5/6	93<5+02 1292+01	.1050+03	2580+63	.1048+03	.1344+03
			(0.857R			1-3/3	1292401	.3380+62	.9615+62 {0.857R	·2738+03	<b>^.</b> 3568+03
0	.1790+02					в	3440+02		VAICO1K		
	3703+02	.1295+03	.4127+02	9699+01	.2561+02	1-5.C	4160+02	.5861+82	1228+63	·7282+02	.1091+03
1-5/5	6864+02	1796+02	9840+ <b>8</b> 2	4001+02	.6047+02	1-5.5	3550+01	1486+02	.8351+02	-2056+03	2704+03

### TABLE 7. A1S CYCLIC PITCH TRANSFER COEFFICIENTS FOR X HINGELESS BLADE

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				0.00112(1+MU1**2	(FOR MU = 8	.7,1.0,1.4)				
N.C OR S	AUVA	NCE RATIO, MU ± 0,2	5		N. C OH	c	AUVANCE E	RATIO, MU = 8.9		
		(0.0)R					ADVANCE I	WITO MO - 0.7		
	7669+02							(e.0)R		
		3+03 .1184+03 1+01 .1424+63	.2764+02 .6510+02	.7499+01 .3935+02	0 1 <b>~</b> 5∙C	.2355+03 .3882+04	¥4697+03	•768i+03	.2326+03	.1805+03
1-3/3	2421103 1092	(0.147R	***************************************	,0,00102	1-5.5	2126+05	2713+03	1184+03	.3031+82	1131+03
	1806+0\$				_			(0.141R		•
	.4551+0j .429 .3601+84 -6853	7+82 -9021+81 4+81 -1551+82	.4516+01 .7092+01	.4944+01 .4984+01	0 1-5.C	.1262+02 .6594+03	.9887+ <b>0</b> 2	·7787+82	.1641+02	1841+82
. 3/3	-1030	(0.325)R	#109E101	*4304.01	1-5.5	3969+04	8167+62	3008+62	2539+01	.2001+02
	1633+02		-4					(0.325)R		
	.5166+02 .252 .4523+03193	7+021788+02 5+021590+02	.2168-00 6199+01	.6467+01 1872+01	6 1+5.C	6015+02 4197+02	·b715+02	1554+63	5998+82	8225+02
1 5/5 1	-1190	(0.557R	101,,,,,,	-12012.01	1-5.5	.6238+03	7754+02	1221+82	-61199+82	-5966+02
0 1-5,C	1568+02		÷-6759+01	2836+01	θ	4998+02		(0.557R		
	.1330+03 .490 .1942+03107	2+622271+62 2+023859+02	0759+01 9489+01	4917+01		1191+03	.1587+03	2730+83	4.8530+62	.1128+02
		(8.751R	.,	*******	1-5,5	.2487+03	7675+02	1263+83	.5759+81	3519+02
	.7632+01 .12∠0+03 .547	4571100	1.1125+02	1201+02	а	9149401		(0.751R		
		1+021531+02 	7702+01	5207+01	1-5,C	7265+02	+1835+03	2454+83	6452+02	.1091+03
:		(0.857R	**********	***************************************	1-5.5	.8878+0ž	4113+02	1818+03	.2238+62	1209+03
0 1+5,C	.3125+01 .7209+02 .347	1+027922+01	7768+01	9153+01	0	.1722+01		(0.757R		
		6+012799+02	4363+01	-,3282+01		3453+02	•1145+63	1420+03	÷.3497+02	.8255+02
					1-5,5	.3099+02	1849+02	1186+03	.1633+02	8751+02
NIC OR S	AVVA	NCE RATIO, MU = 0.4			N.E OR	c	AUMANCE (	RATIO, MU = 1.6		
		(0.0)R					AUVANCE P	(A)107 MO = 1.0		
	2267+03		_					(0.0)R		
		7+63 .2817+03	.8329+02 .1493+83	.9422+02 .9063+02	0 1-5•C	•4911+03 •4266+04	·8127+03	.1427+84	64668+03	4700.07
1-5/5	2412405 +554	1+02 .2910+63 (0.147R	*1493483	.9063402	1-5.5	·1844+05	2464+83	8777+62	2160+0Z	.1399+03 +.1499+03
	4562+02							19-147R	12301142	12477770
		9+62 1939+02 31+61 3471+62	68621+81 •1589+82	.3925+01	0 1∸5,C	•4957+02 •9134+03		-001147	.4171+62	
1-3/5	.3594+04743	(0.325)R	*1284+05	.9701+01	1+5,5	.4439+04	1103+03	.2228+03 .2055+02	2496+81	.8527+01 .6482+02
	3060+02							(0.325)R	12.70.02	10102142
		3+824594+82 4+822894+82	÷.8594+01 ÷.1367+02	5993+01	u 1-5∙C	1255+03 4073+02	0547.00	0705.47		
1-5/5	4729+03318	(4.557R	136/+02	7246+01	1-5,€ 1-5,5	40/3+02 -8408+03	•9517+02 ••1118+03		1313+83 -2970+82	4697+02 .1358+03
	2858+02							(0.55)R	12770.02	************
		1+025289+02	1586+62	.1266+01	0 1∸5•C	1364+03 1334+03		5704 · 57	1744.07	
1-5,5	.2218+03273	8+028663+02 {0.757R	2394+02	1.1016+02	1+5,5	-11334+03	• 9739+02 • • 6651+02	5746+83 .5538+82	~.1364+03 .1086+83	4697+02 1118+03
	1361+02							(0.757R		***************************************
	.1162+03 .792 .8317+02 -6722	4+023047+02 3+011070+03	1532+62 2204+02	.9880+01 7309+01	0 1∸5,¢	5536+02 3978+02	•7128+02	5229+03	÷.5904+02	1923+02
1-3/3 .	1031/102 =1/22	(0.857R	-12204+82	7309+01	1~5,5	.3669+02	13978+01		-1273+02	1923+02 2937+03
	5469+01					_		(0.851R		,2,0,,,,,
		5+621427+02 6-006958+02	9277+81 -61312+82	.7752+01	0	2050+02 6873+01		******		
1-3/3 .	.2826+02486	10-006938702	-:1312+02	3911+01		1992+01	•3797+82 •1315+ <del>8</del> 2	2970+03 7223+01	2231+02 -7732+02	6879+01 1999+03
						•			*******	***************************************
N.C OR S	AVUA	NCE RATIO, MU = 0.5			N.C OR		AUVANCE I	RATIO: MU = 1.4		
		(0.0)R			.+-+	_		(0.0)R		
	2167+03				0	.1334+04				
125,6 . 1=5,5 .		1+03 .5137+03 7-00 .4168+03	.1294+03 .2192+03	.1510+03 .1±36+03	1-5.C	.3608+04	2766+03	9005+03	-,4101+82	9600+ <b>9</b> 2
1-3/5	12701700 194	(0.147R	12172703	*1=30+03	1-5,5	.1610+05	1747+63	8142+63 (0.147R	2207+03	.1346+03
	5051+02				8	د0+1ه30				
	.49u9+03 .767 .35 <del>y3+</del> 04 <b></b> 127	3+02 .3471+02 5+02 .4628+02	.1556+02 .2107+02	3534+01; .1516+02;	1-5.C	.8893+03	+1815+03	.2296+03	3206+02	.1275+02
1-3/3	13373704 -1127	(0.325)R	12101702	.1510+02)	1-5.S	.4919+04	~.1631+03	1127+03 (0.325)R	6943+02	.4405+02
	4069+02				θ	1066+05		(0.025)		
	.4863+02 .309 .4845+03261	7+029064+82 7+024864+02	1195+02 2481+02	4107+02 5071+01	1-5,C	2095+03	-2300+03		.1735+02	.6094+82
1-3/3 .		10.551R	-16701702	30/1401	1-5,5	.1125+04	1898+03	•2536+63 (0•55)R	.3836+92	997 <del>9+</del> 01
	2605+02	<u>-</u>		a.	0	1400+03				
		5+021226+03 1+021296+03	3527+02 3570+62	.7126+81	1-5.C	2918+03	-2110+63		.2041+83	3635+01
1-3/3 .	-180	1+021296+03 (0.757R	3010+02	1821+02	1-5.5	·2166+03	•1620+61	.3453+63 (0.757R	.2228+63	±.9395+0£
	1667+01				θ	4558+02				
	.1006+03 .136 .6396+02 .107	0+839109+82 78+011548+83	4327+02 3Z64+02			7071+02	9798+02		-2548+63	5953+02
1-3/3 .	10370702 110/	(0.857R	3464+02	251170Z.	1-5,5	3320+02	•1544+03	.2148+03 (0.857R	.2551+03	1112+03
	6511+01			<u>.</u>	Ü	1201+02				•
		66+024963+02 88+019914+02	-,2608+62 -,1680+02			7167+01	4049+02		1524+03	4178+92
*-J/J *	1436	-19714708		1311745	1-212	4246+02	+1091+03	-1040+03	.1499+03	6576+02

## TABLE 7.

#### (F) MP = 0.3 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

				11 - 0	10044, (1	= 01					
N.C OK S		AJVANCE RA	TIO, NU = 0.25			N.C On !		AUVANCE R	AT10: MU = 0.7		
			0.0)R						(U.O)R		
. 0	-,2517+02	•				ú	.72/1+02				
	.3201+04	· <822+U3	.9391+02	.2015+02	.1263+02	1-5.0	.3965+04	• o778+03	•587 <del>6+</del> 03	.6378+02	.3363+02
1=5.5	1330+05	579+02	2450+02	.5141+01	.9502+01	1-5:5	.1160+05	+737+03	6907+03	÷.1596+03	3845+01
			0.14)R						(U.147R		
U	1954+Uz					0	2022+02				
1-5.6	.1195+04	·1210+U3	.2621+02	.6277+01	.4017+01	1-5.C	105444	• 2431+03	1952+03	.3389+02	.1966+02
1-5.5	.5213+04	497+02د،-	·1712+01	.5121+01	.4887+01	1-5.5	.5164+64	∠577+u3	1439+03	2499+02	.2233+02
		(	(0.325)R						(U.325)R		
.0	2009+02					U	946d+UZ				
1-5.0	.2295+05	.7168+02	1259+02	2786-00	.4210-00		.4192+03	.2003+03	6471+02	.3427+02	.1344+02
1-5.5	.1697+64	5514+02	.1949+02	.6180+01	.3718+01	1+5/5	.1921+04	1699+03	·2442+03	.9399+02	.4179+02
			U.557R						(U.55)R		
	2963+02					0	9103+02		400000	.5751+02	.3643+01
	7711+02	· 6253+02	2611+02	- 3984-00	1482+01		.2564+02	·2176+03	1954+03 .3626+03	.1736+03	.1972+02
1-5.5	•6095+05	+318+02	.1725+02	.1007+02	.2899+0±	1-5,5	.7519+02	0007+02	13628703 (0.751R	11/30+03	.1972702
_			(0.75)R			0			(U.151K		
	1846+02		1780+02	.7789-00	.2174+01		38404UZ 1663+JZ	.1717+03	1507+03	·4815+02	2970+01
	91o≥+0¿ .1993+03	.0351+02	-1780+02 -5511+01	.6598+01	.1318+01		.2667+03	1512+02		.1306+03	5872+01
1-5,5	.1995+03	1067+02	(U.85)R	*8390401	.1318401	1-3/3	12001103	-11312.02	(0.85)R	*1000.00	
U	-,8957+01		(0.03)//			a	140J+Üc		(0.001)(		
1=546	4944+02	+3325+02	8798+01	.6036-00	.1313+01		1013+04	• >466+02	7716+02	.2558+02	2378+01
	7536+02	0234+01	.1587+01	.3256+01	.5495-00		.1017+05	3024-00	1024+03	.6683+02	6279+01
. 3.3	.,										
NIC OR S		AUVANCE RA	ATIO: MU = 0.4			H,C OR	5	ADVANCE F	RATIO: MU = 1.0		
			(0.0)R						(U.O)R		
0	1140+03					0	.39bu+UJ				
1-5·C	.3200+04	• +738+03	·2484+03	.6502+02	.3439+02	1-5,€	*795A+A+	750+03 ده		2075+03	.5520+02
1-5.5	1323+05	1243+03	886B+02	-6731-00	.2350+02	1-5.S	*101T+Q2	0059+03		.5375+02	.1811+03
			(0.141R						(U.14)R		
	6269+02					0	.1001+03				
1-5,6	·1201+0 <sub>4</sub>	1973+03	-6918+02	·1990+02	.1010+02	1-5,C	.1773+04 .5063+04	++574+03	.1594+03 2942+03	.4331+02 .1253+02	.2576+02 .6480+02
1-5.5	•5177+04	0114+02	2129+01 (0.325)R	•9408+01	.1135+02	1-5,5	*5003+04	238+03	(U.325)R	.1253+02	,6480+02
0	5617+02		(0.323)K			a	1195+03		(0.325)K		
1-5+0	.23:5+03	+1052+03	-+3695+02	4863+01	2068+01		.5061+63	• < 003+03	.6108+02	.1477+03	.5215+01
1-5/6	1712+04	0150+02		.2346+02	.8152+01	1-5,5	.2002+04			1676+02	4491+02
1-3/3	*1712104	-10130102	(0.551R	12040.02	.0152.51	1 3,3	*2000.04		(U.551R	***************************************	*****
0	5451+02		10055711			O.	1652+65				
	6410+02	•1166+03	8171+02	1392+82	3036+01	1-5.C	.5514+U <sub>c</sub>	.2227+03	2101+02	+3386+03	8975+01
	.6413+03	5987+02	.5482+02	.3366+82	.7550+01	1-5.5	.7404+03	2330+03	5298+03	1916+02	1431+03
			(8.75)R						(0.751R		
0	3155+02					0	8059+02				
	-,7764+02	•9656+02	5993+02	1007+82	3875-00	1-5•C	.817U+U1	·1455+03	4223+02	.2754+03	9779+01
1-5.5	.22~7+03	1995+02	.2172+02	.2404+02	.4495+01	1-5,5	.2040+03	/123+02	·3272+03	7201+01	1213+03
			(0.857R						(v.851R		
0	1487+02					0	3400+02	2004.00			
	4154+02	•4783+02	3046+02	5068+01	.1516-00 .2154+01	1-5,6	.5731+0 <u>1</u> .6853+02	•7231+02 ••2174+02		.1431+03 2499+01	5345+01 6356+02
1-5,5	•86,¤9+0∠	0303+01	•7905+01	.1222+62	.2154+01	1-5/5	.6853+02	21 /4+02	•1545+03	2499+01	0330+05
N.C OR S	5	AUVÁNCE R	ATIO, MU = 0.5			N.C OH	S	AUVANCE F	ATIO, MU = 1.4		
						1	-				
			(0.0)R						(6.0)R		
.0	د 7+0ء –					0	9993+03				
	.3444+04	93+03 در،	·4556+03	.7449+02	.3337+02	1-5.C	.3458+04	• 0301+03	1309+03	·1277+03	80+03دن.
1-5.5	.1315+05	1757+03		7237+01	.1655+02	1-5,5	•9255+04	<b>~•</b> ∠552+03	9286+03	•8350+0 <b>3</b>	.3498+03
			(U.141R						(0.147R		
	6577+02					0 1∸5∙C	.4041+U3 .1671+04	4.004 : 5-	7000165		
1-5.C	.1258+04	2325+03	1210+03	.2886+02	.1221+02			+4221+03	·7990+02	.5353+62	1869+03
1-5.5	.5150+04	1047+03	3105+02	.8243+01	.1633+02	1-5,5	.5154+04	3691+03	2789+03 (0.325)R	.2161+03	.9977+02
o	6631+02		(0.325)R			8	4007+02		10.323/8		
1-5.C	.2472+03	.1247+03	8473+02	+4323+01	.2835+01		.4170+03	+3320+83	+2597+03	.3538+62	2347+03
1-5,5	.1711+04	9263+02		•4323+01 •3172+02	.2835+01 .1973+02	145,5	.2330+04	÷+892+03		3518+03	1338+03
1 3/3	-1,11,04	-1,203.02	10.557R	*31/2702	.1713702	2 3/3			(0.557R	10010.00	-12000.40
0	5294+02					0	1820+03				
	5267+02	+1602+83	1785+03	1449+02	.1032+01	1-5.C	-,2914+02	+2773+03	.2222+03	·1087+03	4602+03
1-5/5	6325+03	5862+02		.5652+02	8809+01	1-5.5	-8197+03	3274+03	.4139+83	6117+03	2966+03
			(0.75†R						(0.757R		<del>-</del>
8	2150+02						9461+02				
	6549+02	1347+03	1326+03	1704+02	9355-00		1869+02	1513+03		.1081+63	3139+03
1-5.5	-2054+03	1315+02		.4559+82	2861+01	1-5+5	.1935+03	<b>-</b> ∗6097+02		3938+03	1737+03.
•	010000		(0.85†R			G	3983+02		(0.857R		
1=6.6	8198+01 34c9+02	•7264+02	6775+82	9746+81	.5473-00		2027+01	•6969+82	.2489+62	.58a1+02	<b></b> 1531+03
	.7810+02	1853+01	6//5+02	9746+01 -2408+02	3030+01		•5599+0 <sub>2</sub>	1779+02		-1882+03	1531+03 8447+02
1-9/3	.1010.02		13770702	+C70070C	3030791	- 3.3			*1008.00		-,047,702

## TABLE 7. A15 CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (G) MP = 0.5 FP = 0.301 (FOR MU = 0.25,0.4+0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 8.7\*1.0\*1.4)

			FF - 0	000441/11/01+iF	1. OK P.O 2 04	77107147				
N+C OR S		AUVANCE RATIO: MU = 0.25			H.C OR S	5	AUVANCE R	Y.0 = UM .OITA		
		(0.0)R			_			(0+0)R		
0 1∸5,C	.2957+03	5944+02 .1351+01	3412+02	3666+02	0 1÷5•C	.65±3+02 .38∠U+04	.4400+63	.6438+03	3347+03	.3774+03
1-5.5	.3440+65	1463+03 .2072+02	1059+02	1197+02	1-5/5	.3148+05	1569+03		.3739+03	4490+03
1 313	13475103	(U.147R	***************************************		1 5.5	.5245.05	***************************************	(0.147R		•
0	.1125+02				O	1618+02				
1-5.0	.1023+05	.1140+025681+01	2781+01	-,2408+01	1-5.C	.1782+03	.3978+62	.1048+02 .5047+62	-:2206+02 -:1323+02	4615+02 1702+02
1-5.5	.1611+04	2512+023121-00 (0.325)R	3360+01	2743+01	1-5,5	.2173+04	4475+02	19.325)R	~61323+02	1/02+02
0	-,2347+01	(0.32376			a	5132+02		TOTOLS/		
	1094+03	.3332+021340+02	3401+01	1535+01	1-5,C	1505+03	·2362+02	1043+03	~.5707+02	1133+03
1-5.5	.8161+02	1813+021179+02	6029+01	5167+01	1-5.5	.1856+03	<335+02	5003+01	~.7262+02	1103+03
		(0.551R						(0.551R		
	3760+01 1759+03	.5305+022809+01	2685+01	6535-00	0	48a1+02 1518+03	.0142+02	1349+03	÷.1086+82	.3533+02
	.7834+02	.2529+023104+02	5921+01	+.2948+01	1-5,5	.1645+03	.4067+82		-,4196+02	4782+02
1 0/3	11001102	(0.75)R		127.01-2	2 0/3	11015.05		(0.75†R	********	************
	1354+02				U	.42u3+01				
	1139+03	·0673+02 ·3048+02	.3423+01	1645+01		8020+02	.1772+83	2211+02	~.3326+02	.2261+03
1-5,5	1960+02	.+039+023008+02 (0.851R	3416+01	.6016+01	1-5.5	.1635+02	0961+01	2777+03	•1 <b>5</b> 98+02	.1695+03
0	13+4+02	(U.BSIR			0	105240.		(0.83)K		
	4745+02	.5078+02 .3266+02	.4668+01	.1886+01	1-5,C	.1962+02 3638+02	.1484+03	.2612+02	~.3968+02	.1980+03
	4045+02	.2026+021796+02	1663+01	.7340+01	1-5/5	3615+02	3206+02		.2471+02	.1814+03
	_									
N.C OR S		AUVANCE RATIO, MU = 0.4			N.C Uk		AUVANCE I	RATIO, MU = 1.0		
	=	(0.0)R				_		(0.0)R		
0	.1691+03				υ	.2479+03				
1-5.C	.3149+04	1286+02 .1046+03	1087+02	2712+02	1-5.C	.3691+04	.0380+03		•5910÷03	7846+03
1-5,5	.3467+05	1174+03 -1324+03	•6959+02	.5413+02	1-5,5	•2757+05	9754+02	.1238+03 (0.14)R	.3430+83	.3850+03
O	.9371-00	(U.14)R			U	1760+02		(U.14)R		
1-5.0	,1001+03	.1945+026302+01	.7739-01	1639+01	1-5.C	.2515+03	+1106+03	.8387+02	-42113+02	6980+02
1-5.5	.1613+04	3460+02 .7920+01	6316+01	6522+01	1-5/5	.2857+04	7123+02	.7862+02	2783+01	,2441+01
		(0.325)R						(0.325)R		
0	1370+02				· U	9821+02				
	1105+05	.0104+022786+02	2595-01	.1603+01		2097+03	•4088+02		~.1522+03	2997+03
1-5.5	.1003+03	2930+021629+02 (0.557R	1267+02	1477+02	1-5.5	.2406+03	1930+02	.5422+02 {0.551R	~.7125+02	6562+02
u	1560+02	10.3371			и	9758+02		10.551K		
1-5.C	1079+05	779+029771+01	4609+01	4765+01	1-5,0	-,1525+03	2699+62	3533+03	7641+02	3997-00
1-5.5	.1060+03	.3≥67+02 <b></b> 6767+02	-,7198+01	9185-00	1-5.5	.1111+03	.1123+03	1360+03	3001+02	8630+02
		(0.75)R						(0.75TR		
0 1 = b - r	13c.u+0∠ 1u5o+U3	.1U95+U3 .58H2+02	.9388+01	.7948-06	0	30zd+02 59zd+0z	.3573+02	2487+03	.5622+02	.9638+03
	10+11400	.+487+028771+02	1991+02	.1782+02	1-5/5	5928+02 .9862-00	1225+02	19b9+03	.4530+02	1239+03
2 3/3	10011.01	(U-85)R	*********		1 3/3	£ 900F00	-11223.02	(0.857R	*4550102	-,12,07,00
U	9695+01				ย	2300+01				
	-,4552+02	·0269+02 ·6555+02	7802+01	-,1578+01		-,2493+02	156+02د •		6455+02	.5028+03
1-5,5	4372+ÚZ	.6184+02	2086+02	.1724+02	1-5.5	2310+02	6195+02	1256+03	<b>.</b> 4615+02	9324+02
H+C OR S	5	AJVANCE RATIO, MU = 0.5			N.C Oh	S	AJVANCE F	ATIO: MU = 1.4		
	-					-				
ı,	.1455+05	(0.0)R						(0.0)R		
1-5.0	.1435+U3 .3345+U4	.Jug9+u2 .23o6+03	.9491+01	.9128+01	0 1-5,c	.1050+04	4688+03	.6935+03	1858+03	.5017+03
1-5.5	*7401+02	2438+03 .2369+03	.1451+03	.1572+03	1-5/5	.235++05	1326+03		.1315+03	2420+03
		(U.147R		•	- 5.5			(0.147R		
0	4393+01				Ú	.6150+0∠				
1~5,0	.1012+03	.1911+021353+02	.5293+01	-,2561+01	1-5.0	.2342+03	·0284+02	.1414+03	.4421+01	2857+02
1-5,5	.1020+04	2087+02 .8469+01 (u.325)R	4634+01	-,1392+02	1-5.5	.3508+04	1392+03	.3861+02 (0.325)R	÷-5860+02	.6465+02
υ	2320+02	1013237			í.	1421+03		10132371		
	1150+03	-+u19+U24378+02	.6949+01	-,3510+01		4073+03	-2723+03	6235+02	.6358+02	2018+03
1-5,5	.1150+03	191+022114+02	2387+02	-,3723+02	1-515	.3300+03	1124+03	.1974+03	9107+02	.1401+03
0		(U.55JR				-		(0.55)R		
	20c2+0z 1390+03	·1096+036829+01	7906+01	0517.04	0	9424402		- 0604463	0000.00	
1-5,6	1390+03	.2701+028646+02	7906+01 2146+02	.8513+01 2073+01	1-5/6	-,2293+03 -,2627+01	· 1836+03		.8825+02 .1233+03	1314+01 9104+02
5.5	. 10 -27 03	(N.75)R	2140+02		1-212	2021+01	. 1923+03	.4585+02 (U.75)R	*1533+03	-,7104702
U	5165+01				U	5175+02				
	9701+02	.1535+03 .6020+02	2896+02	.2436+02	1-5.0	944/+02	0797+62	1192+03	•9966+02	.3302+03
1-2.2	9200-00	.7876+021502+03	-,5402+01	.9926+02	1-5.5	·2744+UZ	·7u19+02	.7643+02	.2621+03	2807+03
0	.1364+01	(U.85)R			n	- *		(U-851R		
-	5331+02	.1179+03 .6183+02	2623+02	.2148+02		53192+02 5383+02	785+82ء،	2017+02	.6605+02	.2745+03
1-5.5	3193+02	.0962+021219+03	.1368+01	5941+02	1-5,5	4022+02	1748+02		.1822+83	2046+03
	_	· · · · · · · · · · · · · · · · · · ·				· · · · · ·				

## TABLE 7. ALS CYCLIC PITCH TRANSFER COEFFICIENTS FOR # HINGELESS BLADE

## 

	_		FP =	0.0ull2(1+MU)**2	(FOR MU = 0	7,1.0,1.4)				
N.C OK	5 -	AUVANCE RATIO, MU = 0.25			N.C OK	5	A.JVANCE	RATIO, MU = 0.7		
		(0.0)R					MDAMMCE	MATTO MO = 0.7		
. , 0	-6318+02							(0.0)R		
1-5,C 1-5,5	.2782+04 .2420+05	3699+02 .4189+02 7986+02 .4026+02	1158+02 2649+01	1979+02 7108+01	0 1 <del>5</del> 5.4 C	9454+02 .3375+04	507+03د -	•7227+03	•4058+03	.3588+03
4-3/3	.2420403	(0.147R	-,2049+01	/100+01	1-5,5	.2130+05	1512+03		.1369+83	.8615+01
0	.4661+01							10.147R		***************************************
1-5,¢ 1-5,5	.3542+03	436+024709+01 3036+02 .1483+01	4213+61 2968+01	4450+01 2935+01	0 1~5∙¢	5945+02 .5260+03	¥9016+02	•7835+02	-2536+02	4.1953+02
1-3.3	.55,6104	(0.325)R	2768+01	2935+01	1-5,5	.4005+04	5271+02		• 2030+02 • 1907+02	.3990+02
0	9865+01							(4.325)R		10,,,,,
1-5,C 1-5,S	1410+03 .4264+03	>291+022069+02 >291+021603+02	6075+01	3374+01	U 1-5.0	6457+02 1355+03				
1-3/3	.4204403	(0.557R	6301+01	4143+01	1~5,5	-61333403	.0441+82 4745+02	1351+03 .1934+62	÷.1012+03 ÷.1260+02	+.1496+03 .4970+02
0	1235+02							(0.557R	***************************************	
1-5.C 1-5.S	2291+03 .1474+04	•803+021085+62	7039+81	1883+01	0	4502+02 2000+03	\			
1-3/3	.14/4401	•2801+014046+02 (9.757R	6099+01	3436+01	1~5,5	.2407+03	7299+81	2462+03 1655+03	÷.1316+63 ≐.2149+02	5636+01 7088+02
6	8160+01	,						(0.751R	12.75.02	-11000102
1-5.C 1-5.S	1832+03 -1589+02	•0334+02 •7002+01 •+300+624812+02	4664+01	.6466-06	0	.1775+02 1063+03	·1429+03		t	
1-5/5	11389402	.+300+624812+02 (0.857R	±.6064+01	8892-00	1-5,5	1083+03	•1429+03 •3696+82	2262+83 2755+03	±.8948+02 ÷.1753+02	.1583+03 1638+03
8	4161+01						100,0.02	(0.851R		-11000+40
	1029+03	·5019+02 ·7787+01	2399+01	.8869400	0	.2175+02				
1-5.5	~.1160+02	-3421+023108+0P	֥3323+01	÷.4954-01	1-5,0	4788+02 .1331+02	• 0522+02 • 2985+02	1318+03 1643+03	4615+02 9780+01	.1237+03
N.C OR	\$	ADVANCE RATIO, MU = 0.4					12703102	1043403		1144+03
	-				N.E OK	S	ADVANCE I	RATIO, MU = 1.0		
n	9481+02	/0.0)R			0	.3607+03		(0.0)R		
1-5,0	-19481+02	1353+02 .1657+03	.4131+02	.1544+02	1-5.0	.3361+04	•5784+03	.8827+03	.4869+03	.2199+03
145.5	-2405+05	4014+02 .1448+03	.5684+92	.4099+02	1-5.5	.1871+05	4782+03	1405+03	4267+02	1350+03
·o	5575.00	(0.147R			0	.1136+02		(0.147R		
1-5.C	2535+02 .3393+03	•2597+02 •1136+60	±.7256-66	4.5852+01	1-5,C	.6528+03	.1850+63	1716+03	.4032+02	.1100+02
1-5.5	.3575+04	3505+02 -1777+02	2293+01	1162+01	1-5.5	.4403+04	1149+03	-2644+02	1263+02	6772+02
		(0.325)R						(0.325)R		
8 1 <b>-</b> 5∙C	2648+02 1380+03	47801+824607+82	1533+02	<b>1331+02</b>	1-5.0	137d+03 16c1+03	-1224+63	1166+03	4.1344+83	7098+82
1-5,5	.4403+03	-45373+022456+02	-61406+82	1331+02 1327+02	1-5,5	.80<2+03	-10006+02		·2410+02	.1384+03
		(0.557R		••••				(0.557R		***************************************
0 1+5∙C	2405+02 2141+03	-1348+032841+02	-1562+02	.2737+01	1+5+0	1113+03 1799+03	+6846+82	- 3540407	10/7/43	4197+02
1-5,5	.1734+03	-1121+029332+02	1967+02	6149+01	1-5.5	.1758+03	64989+82	3560+03 .1686+02	1063+83 -1243+03	9867+02
		(0.757R	*********	********			***************************************	(0.757R	*********	-,,00,,,02
0 1~5,C	-,9715+01 -,1613+03	· 1322+03 • 9295+61	4. 474.0440	4444.44	1-5-6	1956+02				
1-5,5	.3307+02	·4485+021251+03	-+1240+62 1548+62	.2062+02 .6008+01		1548+02 1192+02	.2631+82 .1404+83	3778+63 7353+02	1220+02 .1547+03	.£289+02 2769+03
	_	(8.857R						(0.857R	11047700	-12/07/00
0	3182+01				0	.2949+01			-4	
	8815+02 2799+01	.3059+02 .1309+02 .3844+028294+02	6381+01 8671+01	.1614+02 .6065+01	1-5,C	.1792+02 2766+02	•9595+01	2238+63 5705+62	.7670+81 .9310+82	.1613+02 1896+03
2.575	-12////	13644102 -16294102	00/1+01	.6003+01	1-3/3	-12/00+02	17576102	-13/05/02	43210445	1036403
N.€ OR		ADVANCE RATIO, MU = 0.5			N.C OR		ADVANCE R	ATIO, MU = 1.4		
		(0.0)R						(0.0)R		
0	1218+03					.2300+04				
1-5.C 1-5.5	.2949+04 .2396+05	-2523+62 -3055+63 6056+02 -2270+03	.9825+02 .1184+03	.1119+03 .9628+02	1-5,C 1-5,S	.4254+04 .1831+05	.1143+04 1033+04	.4980+03 1028+64	.2278+02 2235+03	1651+02 .1859+03
1-3/3		(0.147R	********	. 70LG+VE	1-5/3	.1031403		10.147R	-02233763	,1339403
- 0	3597+02				· <del>0</del>	+5624+03				
1∸5,C 1∸5,5	.3567+03 .3569+04	.3093+02 .1026+02 4011+02 .3073+02	.4780+01 .5450+81	+.4324+02 .601 <b>3</b> +08	1-5,C 1-5,S	•9215+0 <i>5</i> •5476+04	.4046+03 3021+03	•2210+63 -•1481+03	4327+02 1175+03	.1279+02 .6437+02
1-3/3	13369704	(0.325)R	*3750701	.0016-40	1-3.2	.54/6+04	3021+03	(0.325†R	11/5+05	.043/+02
•	<b>3817+02</b>				6	1153+03				
1-5.C	1351+03 .4564+03	.8393+027030+02	142297+02	4753+02 2496+02		4382+03	1927+03	•1518+03	.1422+0Z	. 3234+02
1-5+5	•4564403	5139+023123+02 (0.557R	±42585+62	*.2475+UZ,	1-5,5	.1060+04	• 7266+02	.3007+63	4,2997+02	.2909+01
0	2285+02					15u8+U3				
125,C	-,1968+03	1650+636536+02	2.3437+02	.1457+02	1÷5,6 1 <b>-</b> 5,5	4430+03 .4191+02	+9918+02	.2425+02	.3711+03	.9634+02
1-5.5	•1773+0 <b>3</b>	++4875+611366+63	£63063+82	-,1251+02	1-5/5	.4191405	•4757+03	•3968+03 (0•757R	.2564+03	1373+03
8	-5889+01				8	1709+02				
1-5.C	÷.1343+03	·1763+032202+02	2498+82	4728+02	1-5.C	5825+02	+1401+02	7588+02	.4815+03	.8340+02
1-9,5	.2420+02	15218+82 -1876+63 (€1857R	1969+62	.9936+01	1-5.5	1315+03	• >310+03	.2355+03 (0.851R	•3568+03	1787+03
0	.9260+01	(4.05)K			Ú	.1030+02		, 0.00 M		
	6963+02	-1103+034990+61	±.1671+02	.6025+02	1-5.C	·2290+UZ	2980+01	5661+02	-2901+03	.4581+02
1-5,5	1076+02	44313+021251+03	2.9403+61	.1049+02	1-5/5	4017+02	.7100+03	-1114+03	.2174+03	1076+03
						,				

## TABLE 7. ALS CYCLIC FITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (I) MP ± 6.5 FP = 0.01 (FOR MU = 8.25,8.440.5) FP = 8.00447(±+MU)\*\*2 (FOR MU = 0.7/1.0/1.4)

N.E OR S	5	ADVANCE RATIO	D, MU ± 18.25			N.C OR 5	<u>.</u>	ADVANCE R	ATIO, NU ± 8.7		
		10.0	0)R						(0.0)R		
.6	3507+02						9737+02				
	.2529+04	·9700+02	.8254+62 4647+62	4409+81	+.5222+01		2974+04	+936+63	.6101+83	64097+02	.3613+62
1-9.5	.1359+05		4647+82 147R	1779+8₽	4147+01	1-5,5	.1163+05	-61456+03	6688+83	4.2847+03	4628+02
	2436+02	(01)	7411				1019+03		1011471		
1+5,0	8565+03	+0508+02	.1669+82	1426+01	£.3623+01	1-5.C	.1140+04	·2508+03	.1972+83	£2747+82	.1928+82
1-5,5	.5295+04	4621+62	9399+81	4970+01	2081+01	1-5.5	.5116+04	+41636+83	1413+63	±+6087+02	.1429+02
		(0.3	325 <del>1</del> P				4.7		(0.325)R		
	2768+02 .1773+02	dim 1 - 00	2734+02	2.6585+01	3568+01	0 1 <b>∸5</b> ,€	1326+03 -1439+03	+2163+03	9967+02	.3588+82	.1760+02
1-9,C 1-5,5	1773+02	.8421+62 7889+62	2734+02 -7668+01	0085+01 .2823+01	1423+01	1-5,0	•1915+04	2013+03	·2147+03	•3356+62 •1204+83	.1750+02
1-3/3	11/02/04		557R	12020102					10.551R	********	133061-5
H	2654+02		-			. 0	9950+02				
	2541+03	·1130+83	4593+82	4.9144+01	2917+01		1290+03	2597+03	2897+03	65543+82	.1410+02
1-5,5	•5765+03	5088+82	~.2523+01 757R	.6599+81	8247-00	1-5,5	•7236+03	-49710+02	.2850+83 (0.757R	€2 <b>29</b> 6+03	.2767+02
a	1387+02	(0.	/5/K			θ	3170+02		(0./57K		
	1916+03	+6172+62	3189+82	÷65913+81	1984+01		7212+02	·1848+83	2367+03	.4318+02	.6303+01
1-5/5	.1694+03		1120+02	.5078+81	1814-08	1-5.S	.2356+03	11579+82	·1478+03	·1769+83	8353+01
		(0.	857R			_	<u>_</u> .		(9.85†R		
· •	6202+01		1507100	2.2893+01	~.3277-06	8 1=5.0	9617+01 2904+02	0305+40	1237403	. od. 7	****
1-5.5	9631+02 -5897+02	+4182+02 +2866+01	1593+82 7381+84	2893+01 -2629+01	÷.2582-01		2904+02 -8823+02	•9385+82 •2198+82	1237+63 .6452+no	62Z47+02 68709+02	.2601+01 8546+01
1-5/5	*3877402	*2000*01	-67301444	*E023701		2 343	*4020102	*2190+02	104324	*0109407	8940101
N.E OH S	s	AUVANCE RATIO	0: MU = 0.4			N.C OR	5	AUVANCE P	0.1 ± UM .0FT4		
	-										
_		(0.0	O)R						(0.0)R		
	1755+03	·1849+03	.2437+63	•5 <b>2</b> 59+0 <b>2</b>	.1614+02	0 1∸5•C	8946+01 .2654+04	2010100	-117109	4 (000000000	
1-5,C 1-5,S	.2509+04 .1336+05		1009+63	-5259+02 4170+82	.3464+01	1-5.5	9925+04	-2819+03 4419+02	.3113+85 1066+84	≏62734+03 ±•1277+03	.5755+02
1-3/3	*1330+03		1410		.3404101	1-3/3	13723704		(0.147R	1277493	.1147+03
6	8883+02						1044+03				
1-5.C	.8477+03	•1096+83	•5852+02	·1261+02	1753+01	1-5.C	1097+04	·2209+63	.1452+83	£66899+02	.3378+02
1-5.5	<b>₹5218+0</b> 4		1126+02	5932+0±	.2830+01	1-5.5	•4904+04	2267+83	2920+83	<b>-</b> ∙3890+62	.4968+02
٠0	6550+02	(0.:	325†R			U	1990+03		(0.325)R		
1-5+C	•19o2+02	.1226+03	6223+02	±41#53+02	4.7394+01	1-5•C	.1310+03	•2504+03	-3717+01	£1509+03	.1712+02
1-5.5	.1702+04	110A+N3	.3514+02	-2074+02	3727+01	1-5.5	.1995+04	3849+03	-2916+03	63415+82	2613+02
			551R						(0.551R		*******
8	5011+02					θ	1652+03				
	2330+03	1588+03	1223+03	-, 3039+02	7906+01		1041+03	-2681+03	1406+03	43558+63	4475+01
1-5.5	.6012+03	du71+02	,9871+61 757R	•3467+02	.3767+01	1-5.5	.662U+03	2422+63	.4663+83 (9.75)R	67372+82	1277+03
0	2246+02	10.	/3/K			8	5960+82		(W.15)K		
1-5,€	1681+03	-1142+03	9135+02	4,2380+02	3400÷01		1917+02	•1623+03	1410+83	42584+03	1223+02
1∸5•5	.1875+03	4227+61	1911+02	.2506+82	2057+91	1-5.5	·1478+03	-,2891+02	.2678+83	.5294+02	~.1206+03
		(9.	857R			_			(9.857R		
0 1-5.C	9290+01 8297+02	+5839+02	4686+02	1241+02	1319+01	9 1∸5,c	-,2070+02 ,3564+01	7777140	=//=+=0		
1-5/5	6801+02	•3778+01	-:1438+AP	.1274+02	.9392+00	1-5,5	.3956+02	•7733+02 •0161+01	766 <b>3+8</b> 2 .122 <b>2+83</b>	•1496+93 •263 <del>9+</del> 92	7462+01 6496+82
				•==,	1,0,2	- 0.0	10,00.02	10101.01	1155.00	45033145	0->=145
NIC OR		AUVANCE RATI	0. MU = 0.5			NIC OR S		AUVANCE F	RATIO, MU ± 1.4		
~~~~	-						-				
	- 20-4-02	(0.	0)K						(0.0)R		
0 1∸5,C	2008+03 .2600+04	.2304+03	.4301+03	.8224+02	.3512+02	1-5,c	1627+02 .20u1+04	1786+03	7472+02	4.9321+02	.4393+03
1-5.5	.1321+05		1894+03	-,7969+02	9849+01	1-5/6	.8354+04	•3738+ <b>63</b>		•4487+83	.1003+03
			147R			1-3/3	10007704		(0.14)R		1110110
в	1102+03					8	1356+03				
1-9.C	.8795+03	1309+03	.1080+03	.2611+02	6941+01	1-5.C	.8167+63	•3279+82		~.2853+0Z	.1424+03
1-5,5	-5168+04		2478+02 3251R	1220+82	.7713+01	1-5,5	.4645+04	5297+02	2713+03	+1138+03	.2663+02
0	8414+02	10.	323711			A	-,2360+03		(0.325)R		
1-5•C	.3048+02	+1449+63	1034+03	1.1166+82	8681+01		3725+02	• < 345+03	-1130+03	.6771+82	1454+03
1-5,5	.1696+04		.6851+02	·4022+02	.1893+02		·21u5+u4	5272+03		4.1977+83	-,5063+02
_	E044 - 65	₹0.	551R						(0.551R		
0 1÷5∙C	5246+02 2092+03	.2014+03	2195+03	4358+02	÷.7857+01	. 0	د 1-1657+0				
1-5,5	2092+03 -5951+03	0108+02	2193+03 -4936+02	-,4358+02 -,7342+82	7857+01 -8760+01	1-5-C	1836+03	• < 774+03		-1580+93	3308+03
2-3/3			751R		10,552	1-5.5	.6740+03	3814+03	.3572+03 (0.751R	3467+03	-,105 <del>6+</del> 93
е	1326+02					a	3762+0/		, - • 1 J I I		
1-5.C	1421+03	·1524+03	1704+83	4054+62	-,1391+01	1-5.C	2360+02	-1482+03	7678+02	·1585+63	<b>2414+03</b>
1-5.5	.1765+03	·1360+01	.8797-01	·5624+8 <b>2</b>	3682+01	1-5.5	·105d+03	5247+02	.1611+03	±.2262+83	475a+02
n	2753+01	19.	857R			_			(0.85TR		
1~5+C		. 7924+02	8853+62	±+2216+02	.6765-01	6 1-5-C	6598+01 .8520+01	• ob02+82	4998+82	+8Z59+0Z	1203+93
1-5.5	.6111+02	-1105+02	6294+01	£2916+02	3614+01	1-5/5	.1290+01	•6231+01		1087+03	3882+02
			.,	0.01.00	***						

## TABLE 8. 115 CYCLIC TITCH THANSFUR COEFFICIENTS FOR A HINGELESS BLADE

(A) MP = 0.1 FM = 0.351 (FOR MU = 0.25;0.4\*0.5) FM = 3.355447(1\*Mo)\*\*2 (FOR MU = 0.7;1.0;1.4)

N.C UK	s -	AJVANCE R	AT10, MU = 0.25			N.C OR		ALVANCE R	AT10, MU = 0.7		
			(u.0)K						(u.0)K		
U 1≐5.€	5795+04 3971+05	0645+02	.3639+02	.7151+02	.7379+02	(	1002+05 7505+05	476.6+44	3171+04	4750+03	8440+03
1-5,5	.5517+04	• 5445+03	·1286+03	.9763+02	8629+02	1-5.5	1050+04	.1347104	3821+04	6102+03	1710+04
			(U.14)R						(v.14)R		
U 1=5•0	2509+05 1815+04	.1412+01	.1825+01	.1663+01	.1009+01	1=5.1	91-J+UJ	42+03	2394+02	.7154+02	.1395+03
1-5.5	.1943+05	· J135+02	•5774+01	.5527+01	1819+01		20000103	•••14+03	9207+02	.3654+02	.2191+03
0	4 3. 414		(u.325)R			u			(0.325)2		
	1263+02 7041+02	.4870+01	•1968+01	2682+01	4374+01		-01.951+02 -01.951+02	+-113+03	•5090+03	•d719+02	.3222+03
	12:50+03	·1369+02	.2959+01	.1551+01	3384+01	1-51-	7366+05	<b>ذ∪+11د</b> ے•	.5203+03	1492+03	.6239+03
ū	•27 <del>59+</del> 02		(0.55)R			U	.415.2400		(U+55)R		
	8209+02	1097+02	.3792+01	1283+01	~.1044+01	1-210	.100.100	د0+7دد:،	03+ئە77-	1728+02	-,9387+02
1-5/5	1441+03	·<630+02	.1069+02	1448+01	4706-01	1-515	1029474	• - 010+63	•1175+04	.8273+02	2873+02
0	.2159+03		(0.75)R			u			(U.75)R		
1-5.C	.1699+02	4070+02	4368-00	2745-00	.5707+01	1-5,0	11 324103	/146+03	•650∠+03	.2235+03	6775+03
1-5,5	<b>~</b> •1059+03	•5960+82	.1362+02 (0.85)R	5203+01	4393+01	1-512		•/591+03	•1528+04 (u•85)R	5139+02	1221+04
0	.2197+03		(U.85/R			u	.490.103		(U.85)K		
1-5:6	ے0+1د84 <b>،</b>	2460+02	1315+01	4803-00	.6053+01	1-5.0	. E U + U 3	/oz 1+03	.3901+03	.2583+03	6025+03
1-5,5	6018+02	•5420+02	•9609+01	4618+01	.4211+01	1-512	4450411	• JU59+03	.1099+04	6845+02	1149+04
N.C OK	s	AUVANCE R	ATIO: MU = 0.4			INFC U		MUVANCE R	ATIO: WU = 1.0		
	-		10.010				-		010		
В	939o+0 <del>4</del>		(0.0)R			U	755+05		(0.0)R		
	4958+05	9984+03	1531+03	.1134+03	.1120+03	1-010	11 u 14 bu	1565+05	1393+05	2625+04	1059+05
1-5,5	.4561+04	47913+83	7793+02 (9.147R	.1014+03	.1356+03	1-2:5	11/0+05	· ∠ ¿73+04	1797+05 (u.14)R	÷.2972+04	7609+04
. 0	4031+03		(**1*/K			v	2: 6+64		(0.14)1		
	2255+04	1970+62	+100B+01	8382+01	3591+01		1150+63	1203+04	4403+03	.3560+03	.1448+04
1-5.5	.7720+02	.5850+62	8575+81 {0.325}R	.4010+01	3689+01	1-5+5	1902+04	•4159+03	600U+03 (U-325)R	.7879+02	.9365+03
8	.3319+01					U	.1169404				,
	4737+02	44046+02	+2408+82	2013+02	1630+02		-,.,,(U+U)	· ×205+U4	·2576+04	.9512+03	.4311+04
1-5,5	3132+03	.4320+82	.1818+02 (0.557R	2424+01	1743+02	1-5/5	102/+04	•90+U3	•3178+04 (U•55)R	.7527+03	.2744+04
. 9	.6235+02					U	.1212+04				
	3309+02	+63175+02 •7445+02	.3052+82 .9266+02	.9088+01 ∸.7241-00	1630+01 7440-00	1-5,0	100+05	•1379+04 •1314+04	.4284+04 .5286+84	2171+03 .6024+03	1034+04 2795+03
1-5/5	3880+93	*1445+02	19.757R	/241-00	/440-00	1-3/3	120/104	•1314+04	(u.751R	16024703	-,2775405
. 6	3551+03					U	-1210104				
1-5,C 1-9,5	.7697+02 2506+03	1489+83 -1428+83	.4980+01 .1268+03	.4572+02 .8841+01	.2844+02 .2867+02	1-5,0	.6052+05 8563+65	0410+03 .1910+04	.4180+04 .5247+04	1391+04 -1741+03	8367+04 3673+04
1-3/3	•		19.857R	10072701	12007.12	1-3/3		.1910104	(0.85)R	11/41+05	-130/3/04
	.3608+03				********	υ	.7314+43				
1±5,€ 1≐5,\$	.8939+02 1201+03	-+1393+83 +1257+83	7178+01 .9131+02	.4141+02 .9813+01	.2924+02 .2873+02	1-5:0	.4451+05 4710+05	1013+04 -1373+04	.2618+04 .3317+04	1118+04 .2400+02	7044+04 3042+04
				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.20.0	1.373	-14710.05			*2400702	-13042104
N.C OR		ADVANCE R	E.6 = UM GITA			N.C On	5	AUVANCE !	RATIO: MU = 1.4		
	-		(0.0)R						(0.0)R		
8	1192+05			·1373+03	.6671+02		607/+05				a. 20 . D.
125,5	5859+05 -3529+04	+12575+04 -1119+64	6752+83 5706+83	±.2441+01	4563+02		2045+00 3769+05	2380+05 .2459+ <b>03</b>	5458+05 3066+05	2331+04 5947+04	8409+04 .4150+04
			(0.147R	*********	14000	1-3/3	-+3/09403	V2439.03	(0.147R	20141101	• • • • • • • • • • • • • • • • • • • •
	5499+03	4/2500.00	4777400	·.1551+02	,6257+01	U	8520+04				
149,C 148,S	2654+04 4669+92	442546+82 47208+82	.1773+02 £464+02	.9188+61	.2247+02		3000+05 7031+04	3496+04 .0135+03		.9761+03 2990+03	.1380+04 6226+03
			(0.3257R	************	<b>122</b>	1-5/3	-11031104	*0133.03	(0.325)R	,	***************************************
	.1685+02 1308+02	61621+83	.£079+63	£43259+82	.4380+01	0	.2602+U4 1294+04		1171+05	.1481+04	.4161+04
	-+4803+03	67293+82	.6644+42	62189+82	4337+02		1294+04	.1038+04 .2001+04		•1481404 •1155+04	2817+04
			le.557R						(0.557R		
0 1 <b>-9</b> ∙€	.1924+ <b>93</b> .3735+02	•1527+8£	.4554463	42729+68	4.6584+01	0 1∸5•C	.4279+04	•1769+04	-2046+05	1.8717+02	1423+04
		(1756+03	.2394+83	(2563÷62	2897+01		.1575+04 1845+04	·1769+04	.8263+84	•1454+04	.1545+04
		• •	10.757R			•			(U.757R		
1-5,6	.3925+83 61366+83	4.2434+63	.6479444	61149+63	1.2574+02	6 1+5,C	.3394+04 .1660+04	<b></b> 1227+04	·1987+05	.5455+03	7351+04
	4687+03	₹252 <b>7±83</b>	.3935+65	42285+82	4.7023482	1-5/5		+466+04	.4951+04	9639+03	9278+04
	.3284+03		l <b>e.8</b> 57 <b>R</b>			_	.1909+04		(0.857R		
125.8	.4210+63	-62462+8\$	.4809462	44050+03	4.1948+00	1 <u>19</u> ,6	.1909+04	1589+04	.1207+85	<b>6927+03</b>	5640+04
145,5	+.2772+03	61956403	43557463	48395+02	a, 9023+0£		3949+03	-3058+04		•4922+03	.7489+04

## TABLE &. BIS CYCLIC PITCH TRANSFER COEFFECTENTS POR R HIMELEDE TELEMON

#### (B) MP = 0.1 FP = 0.0025 (FOR MU = 0.2570.000.59 FP = 0.00112(1+MU1++2 (FOR MU = 0.771.005.00.50

N.C OR S	ADVANCE RATIO: MU = 0.25		N.C OR S	ADVANCE RATIO, MU = 0.7	
	(0.0)R			(0.0)R	
83992+04			•£158+05		A AD
1-5.C2701+05 1-5.5 .5988+04		.3789+62 .3333+02 .5766+62 .4301+02	1-5.6 <b>540518</b> 5 1-5.5 <b>.4798</b> 184	4611+845778+84 .1972+842038+84 (0.147R	1,7078+03 +,4321+03 1,2663+63 ,8420103
05971+03	(0.17/K		~9 <b>~.19</b> 95+94	****	
1-5.03992+04		6210+01 .6741+01	1-5.69989+84	+.5957+035007+03	5759+02 .05634 <b>0</b> 2
1-5,5 .8228+03		.6701+01	1+5,5 .5782+03	.4288+832618+83 (0.325+R	1314+62 4.6052+03
65908+0≥	(0.325)R		0 .1045+03	(0132374	
1-5,C4564+03	.0092+01 .2007+02	2395+81 .3853+01	1-5.01228+04	.3648+83 .1368+84	.1592+03 .2017403
1-5.54422+02	.1353+02 .7062+01	2386+81 .1741+01	1-5,56505+03	-2775+03 -3608+03	.7914+62 4 <b>.3994103</b>
	(0.55)R		8 .4804+93	(0.557R	
0 .6674+02 1-5,C1706+03	2276+01 .3165+02	.3408+81 .8183-00	1-5,C2044+03	·1126+03 ·2249+04	.39e6+03 4.£¥14+0£
1-5,51314+03	.3497+02 .1615+02	3141+81 .2173+01	1-5.59906+83	65434+83 •9071+83	49659+02 .1 <del>79640</del> 5
	(0.75)R		8 .4348+03	(0.757R	
0 .1371+03	1319+02 -2849+82	43277+81	8 .4348+03 1*5,C .5722+02	-42968+83 .1945+84	.3526+032005403
1-5.C5024+02 1-5.59847+02		3068+01 .2050+81	1-5.57622+03	45836+83 .9914+83	.6483+82 .7246+83
2 3/3 7/3///32	(0.857R			(0.857R	
0 .9709+02		Allenda	0 .2495+83 1∸5⋅C .6543+92	2507+63 .1111+64	.2278+03 4,1504+83
1-5.C1215+02 1-5.55291+02		.1991+812452+01 .1878+81 .1241+81	1-5.54156+03	13574+83 16084+83	.3226+02 .5290+03
1-2122531405	13228102 11233102	10,9401			
N.C OR S	AUVANCE RATIO: MU ± 0.4		N.C OR S	ADVANCE RATIO: MU = 1.0	
	(6.0)R			(0.0)R	
06547+04			02053+05		
1-5.C3415+05	3978+033431+63	4357+02	1-5.C9447+05	+.1245+852656+85	2445+04 .3197+03 4548+03 .1435+04
1-5.5 .5027+04	.9179+031484+03 (0.147R	.4552+62 .1740+01	1-5:5 .4130+84	.3829+049915+83 (0.147R	4948+83 .1435+ <b>94</b>
u -,9695+03	(U-147K		04314+04	10024711	
1-5:05028+04		.8162-00 .5905+01	1-5,62236+05	2267+84 3302+84	1638+031567+81
1-5:5 .6808+03	•1380+03	.8225+81 .1300+02	1-5.5 .4772+03	1184+043675+03 (0.325)R	3705+823627+83
,U7664+02	(0.325)R		6 .5383+03	(0.325)*	
.07654+02 1-5:C5316+03	.29u3+02 .75au+02	.1029+01 .5670-00	1-5,C3493+04	+9963+83 +6896+64	.8928+83 <b>8886+92</b>
1-5.52428+03	.3639+02 .4523+02	.5428+01 .2207+02	1-5.51015+04	69786+034576+03	6658+82 <b>9884+8</b> 3
	(0.55)R		B .1492+04	10.557R	
0 .1275+03 1-5+0154#+03	2768+02 .1130+83	.2351+02 .3739+01	1-5.C4607+03	·1259+84 ·1184+85	.1184+84 .1544+83
1-5/53560+03	.0251+02 .1196+03	.9647+015987-08	1-5.51349+04	+1565+048311+03	2329+03 .9360+03
	(0.75)R		4000.05	(9.757R	
0 .2299+03 1-5:C1579+02	d772+82 -9476+82	.3835+02 .6975+01	0 .1089+94 1-5,C .1444+03	45338+03 .9768+84	.7903+83 .3873+83
1-5.52428+03	·1051+03 ·1444+03	1018+022722+02	1-5.58662+03	·1423+847879+83	4055+83 .2239+84
	(0.857R			10.857R	
0 .1596+03	563+02 .5449+82	.2643+62 .4190+01	0 .5648+03 1-5:C .1368+03	·1941+03 ·5377+84	.3998+03 .2035403
1-5,C .1135+02 1-5,5125/+03	0563+02 -5449+02 	.6360+812190+02	1-5.54296+03	.8113+034936+03	2640+83 .1512+84
1 3/3 1123/143				_	
N.C OR S	AUVANCE RATIO: MU = 0.5		N+C OR S	AUVANCE RATIO, MU = 1.4	
	(0.0)R			(U.O)R	
ŭ851⊃+04			03890+05		
1-5.04073+05		-,5178+02 ,4479+02 -,6945+01 ,1556+03	1-5,C1060+06 1-5,5 .7037+04	1584+092445+05 .3452+84 .2724+85	.7205+03 .1674+04 .1334+044230+03
1-5:5 .51:0+04	.1291+042953+03 · (0.147R	.,6945401 ,1336403	1-5/5 ./05/404	(0.147R	113311014230113
U1230+04			01053+05		
1-5.65960+04		8154+01 .7890+01 1205+022141+01	1-5.C3179+05	3774+844527+04	.4379+03
1-5+5 +5409+03	-∠U20+033663+02 (U.325)R	.1205+022141+01	1-5:5 .1260+04	•2222+84 •3846+84 (0•325)R	.3150+834987+63
05094+02			.u .3391+03		
1-5.C6023+03	•9271+U2 •2332+O3	.1697+02 .5037+01	1-5.C54u2+04	·1158+04 ·5741+84	·1115+039012+03
1-5.54101+03	-/570+02 -5309+02 (0-55)R	.2615+023657+02	1-5/S1345+04	•2926+84 <b>9919+84</b> {0•557R	8709+033848+03
U •≥Ub¤+UJ			0 .3063+04		
1-5:61432+03	552+02 •3465+03	.8495+02 .9716+01	1-5.C5433+02	·1972+84 ·1031+65	1146+04 .1573+04
1-5,55843+03	.1657+03 .2073+03 (0.75)R	.2510+02 .2161+02	1-5:51614+04	.3125+841768+85 (9.757R	-:3192+04 .9614+83
U .31∠1+U3	(U-/3)K		8 .2293+04	(4.73)K	
1-5:0 .1247+02	1708+03 -2926+03	.1213+03 .1076+02	1-5,0 .3201+03	·1841+04 •7941+84	1587+04 .2987+84
1-5,54299+03	•∠U16+U3 •2799+O3	.8337+01 .6156+02	1-5,5 +.7466+03	.1830+041412+05	÷.3456+04 .1582+ <b>8</b> 4
0 .2161+03	(0.85)R		0 .1175+04	10.857R	
1-5:( .3070+02	1334+03 .1683+03	.8145+02 .6808+01	1-5,0 .1560+03	.4541+03 .4188÷04	9665+03 .1845+84
1-5,5 2320+03	•1309+03 •185a+03	.1841+01 .6171+02	1-5/53012+03	•8678+03 <b>-•7549+04</b>	2008+04 .9887+93

#### (C) MP = 0.1 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

14.C U.		AUVANCE RATIO, MU = 0.25			N.C OR S	ADVANCE RATIO, MU = 0.7		
	-	(0.0)R				(0.0)8		
J	2100+04	1000111			06465+04	1000711		
1-516		·1780+03 ·3613+02	.1513+02	.1075+02	1-5,02740+05	1978+044217+03	3597+03	.4645+02
1-5,5	.0212+04	031+03 .5709+02	.6638+01	.4311+01	1-5/5 ,8135+04	.2553+04 .1262+04	·2657+03	.4605+02
u		(U.14)R			02659+04	(0.147R		
1-0,6	5162+04	./445+02 .8777+01	.5827+01	.4579+01	1-5,01190+05	7019+031759+03	÷.8271+02	.1687400
1-5.5	.2373+04	·1559+03 ·1664+02	.3330+01	.2099+01	1-5,5 .3264+04	.1134+84 .2513+03	-5816+02	5607+0£
		(U-325)R				(0.325)R		
0	2230+03				86199+03			
1-5,C 1-5,S	1644+04 .03c0+03	8011+01 5778+026052+01	.1611+01 .8950-00	.2193+01	1-5,54131+04	3554+826297+02 .3010+834800+83	.1044+83 1167+83	1854+02 3152+02
1-3/3	10320403	(0.55)R	.8950-00	.1513+01	1-3/3 .8188403	(0.557R	-61101463	3132402
0	.3122+01	10100111			0 .1414+03			
1-5.C	5049+03	·-1u5+021419+02	1498-01	.1335+01	1-5.01313+04	7713+015642+02	.1498+03	.2071+02
1-5.5	·1072+0s	105+021404+02	÷.1199+00	.1359+01	1-5.53504+03	7199+03	2373+83	.5125+01
0	.5374+02	(0.75)R			0 .2039+03	(0.757R		
	1819+03	· + U23+U2 96U4+01	4079-00	.9893-06	1-5,0 -,3551+03	1044+034866+52	·8297+82	.4017+82
1-5,5	-,4050+01	.+131+029754+01	3514-00	.7791-00	1-5.53503+03	.2674+034425+03	1837+03	.3070+02
		(v.85)R				(8.857R		
1-5,C	.3300+02 6302+02	•+560+01 <b></b> 4749+01	÷,2597-80	-2480-08	0 .1112+03 1-5,01202+03	7180+022654+02	+3744+82	.2456+02
	911o+U1	·<229+u24847+01	÷.2153-00	.3674-00	1-5.51824+03	1369+032099+03	9480+62	2005+02
			12150 00	13074 40				
N.C OK		ADVANCE RAILO, MU = 0.4			NIC OK S	AUVANCE RATIO: MU = 1.0		
	-	(U.O)R				(0.0)R		
0	3605+04	10.078			31ú32+05	( • . 0 / R		
1-5,C	1743+05	5022+02	.3505+01	.1416+02	1-5.63967+05	4457+045608+03	•5953+03	.8332+82
1-5,5	.6632+04	·0869+03 .2159+03	.4888+02	.7858+01	1-5,5 .9333104	.5480+64 .2487+64	<b></b> 8998+03	6776+83
0	1397+04	(0.147R			04012+04	(0.147R		
1+5.C	6755+04	-1305-081837+02	.1655+01	.6205+01	1-5,01941+05	1829+043942+03	.1643+03	.2121+81
1-5,5	.2441+04	+3424+83 +4944+02	.1207+02	.5581+01	1-5.5 .4247+04	·2837+04 .5351+03	÷.2380+03	2105+83
_		(0.325)R				(0.325)R		•
0 1∓9.c	-,3636+03 -,2114+04	·1918+022946+01	2440.04		1-5:07050+04	-,4063+03 -,4407+83	3264+03	2773+02
1-5,5	.5188+03	1223+035107+02	.3610+01 1153+02	.3715+01 .4290+01	1-5/5 -1/650+04	2063+034407+83 1507+041114+04	•2606+ <b>63</b>	.2090+83
- 0.5		(0.557R		14270701	1 5/5 1107//04	(0.557R		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
0	·1534+02				0 .4554+03			
1-9,C 1-5,S	6915+03 4727+02	2833+01 -3307+01 7914+02	+9077+01	.3808+01	1-5.6/530+04	-1520+035714+03	8411+03	.5550+02
1-5/5	4/2/402	(0.757R	1.2292+02	2049+01	1-5:52024+03	•1108+64 -•1841+64 (0.75)R	.3999+03	.9112+03
. 8	<b>,9</b> 358+02				U .4609+03	(0.75/K		
	2097+03	1971+02 -3582+01	.8662+81	.2681+01	1-5,60771+03	2597+814039+63	7050+03	.8705+02
1-5.5	9072+02	47639+824808+82 (0.857R	±.1705+02	5262+01	1-5/52923+03		•2238+03	.3996+03
. 8	·5768+02	(0.85/K			U .2352+03	(0.857R		
1+5,C	7647+02	-+1315+82 .1977+81	4787+01	.1372÷01	1-5,02270+03		3691+03	.3130+02
1+5,5	4865+02	·4098+022273+02	8730+01	3327+01	1-5.51543+03	.3225+035803+03	.1010+03	.2048+63
N.T OR	s	ADVANCE RATIO, NU ± 6.5			NIC OR S	AUVANCE RATIO, MU = 1.4		
						ADVANCE RATIOS MO 2 1.4		
•	4777+04	(0.0)R						
0						(0.0)R		
			4.1030403	4304402	01813+05			
1-5,C 1-5,S	2127+05 .6788+04	5430+037461+02 	1038+03	.4384+02	1-5:65163+05	5280+044664+03	~.4946+04 4946+04	2411+04
1-5,5	2127+05 .6788+04	5430+037461+62 -1364+04 -4437+03 (0.147R	1038+03 .3146+02	.4384+02 .1805+01	1-5,65163+05 1-5,5 .7248+04		4546+04 4096+04	2411+04 2565+04
1-5,5	2127+05 .6788+04 1803+04	1364+04 .4437+03 (0.147R	.3146+02	.1805+01	1-5.65183+05 1-5.5 .7248+04 09021+04	5280+044664+03 0711+04 -1664+04 (0-147R	4096+04	2565+04
1-5,S 0 1+5,C	2127+05 .6788+04 1803+04 8227+04	.1364+04 .4437+03 (0.147R 1640+033173+82	.3146+02 2.1790+02	.1805+01 .8129+01	1-5.65163+05 1-5.5 .7248+04 09021+04 1-5.62824+05	5280+044664+03 0711+04 -1684+04 (U-147R	4096+04 1336+04	2565+04
1-5,5	2127+05 .6788+04 1803+04	1364+04 .4437+03 (0.147R	.3146+02	.1805+01	1-5.65183+05 1-5.5 .7248+04 09021+04	-5280+044664+03 -6711+04 :1664+04 (U-147R -12373+047459+03 -5280+04 -7811+02	4096+04	2565+04
1-5,5 0 1-5,C 1-5,5	2127+05 .6788+04 1803+04 8227+04 .2442+04	.1364+04 .4437+03 (0.147R 1640+033173+02 .5275+03 .8583+02 (0.325)R	.3146+02 2.1790+02 .1426+02	.1805+01 .8129+01 .6001+01	1-5.651a3+05 1-5.5 .7248+04 09021+04 1-5.6 .3544+04 02434+04	5280+044664+03 -0711+04 -1604+04 (0.147R 	4096+04 1336+04	2565+04
1-5,S 0 1-5,C 1-5,S 0 1-5,C	2127+05 .6788+04 1803+04 8227+04 .2442+04 4372+03 2543+04	.1364+04 .4437+03 (0.147R 1640+033173+82 .5275+03 .8583+02 (0.325)R .1318+022303+02	.3146+02 1790+02 .1426+02	.1805+01 .8129+01 .6001+01	1-5.6516.403 1-5.5	5280+044664+03 -0711+04 -1684+04 (U-147R 2373+04 -7459+03 -5280+04 -7811+02 (U-325)R 2390+031210+04	1336+04 1381+04 1695+04	2865+04 6710+03 8728+03
1-5,5 0 1-5,C 1-5,5	2127+05 .6788+04 1803+04 8227+04 .2442+04	.1364+04 .4437+03 (0.147R1640+03 .8583+02 (0.325)R .1318+022303+02 .1920+03 .1	.3146+02 2.1790+02 .1426+02	.1805+01 .8129+01 .6001+01	1-5.651a3+05 1-5.5 .7248+04 09021+04 1-5.6 .3544+04 02434+04	5280+044664+03 -0711+04 -1644+04 (0-147R 2373+047459+03 -5280+04 -17811+02 (0-325)R 2390+031210+04 -3360+041577+04	4096+04 1336+04 1181+04	2565+04 6710+03 8728+03
1-5,S 0 1+5,C 1+5,S 0 1-5,C 1+5,S	2127+05 .6788+04 1803+04 8227+04 .2442+04 4372+03 2543+04 .3911+03	.1364+04 .4437+03 (0.147R3173+82 .5275+03 (0.325)R .1318+02 .1920+034358+03 (0.557R	.3146+02 1790+02 .1426+02 .4277+02 .3047-00	.1805+01 .8129+01 .6001+01 7146+01 .1094+02	1-5.6516.403 1-5.5	5280+044664+03 -0711+04 -1684+04 (U-147R 2373+04 -7459+03 -5280+04 -7811+02 (U-325)R 2390+031210+04	1336+04 1381+04 1695+04	2865+04 6710+03 8728+03
1-5,S 0 1-5,C 1-5,S 0 1-5,C 1-5,S	2127+05 .6788+04 1803+04 8227+04 .2442+04 4372+03 2543+04 .3911+03 .5934+02 7997+03	.1364+04 .4437+03 (0.147R	.3146+02 2.1790+02 .1426+02 .4277+02 .3047~00	.1805+01 .8129+01 .6001+01 7146+01 .1094+02	1-5.6516.3403 1-5.5	5280+044664+03 -0711+04 -1644+04 (0.147R 2373+04 -7459+03 -5280+04 -7811+02 (0.325)R 2390+03 -11210+04 -3360+04 -1577+84 (0.557R	4096+04 1336+04 1181+04 -1695+04 -1373+04	2565+04 6710+03 8728+03 .9708+83 .9832+03
1-5,S 0 1+5,C 1+5,S 0 1-5,C 1+5,S	2127+05 .6788+04 1803+04 8227+04 .2442+04 4372+03 2543+04 .3911+03	.1364+04 .4437+03 (0.147R	.3146+02 1790+02 .1426+02 .4277+02 .3047-00	.1805+01 .8129+01 .6001+01 7146+01 .1094+02	1-5.65163403 1-5.5 .7248404 09021+04 1-5.62824405 1-5.5 .3604404 02434404 1-5.612304404 1-5.6 .1014404 0 .6253403	5280+044664+03 -0711+04 -16d4+04 (0.147R 2373+047459+03 -7811+02 (0.325)R 2390+031210+04 -3360+041577+04 (0.557R 51320+04 2401+04 2401+04	1336+04 1381+04 1695+04	2865+04 6710+03 8728+03
1-5,S 0 1-5,C 1-5,S 0 1-5,C 1-5,S	2127+05 .6788+04 1803+04 8227+04 .2442+04 4372+03 2543+04 .3911+03 .5934+02 7997+03 2366+03	.1364+04 .4437+03 (0.147R	.3146+02 2.1790+02 .1426+02 .4277+02 .3047~00	.1805+01 .8129+01 .6001+01 7146+01 .1094+02	1-5.6516.3403 1-5.6	5280+044664+03 -0711+04 -1684+04 (U-147R 4273+04 -7459+03 -5280+04 -7811+02 (0.325)R 2390+03 -1210+04 -1577+84 (U-557R -5119+03 -1320+04	1336+04 1336+04 1181+04 .1695+04 .1373+04	2865+04 6710+03 8728+03 .9708+83 .9832+03
1-5,5 0 1-5,C 1-5,S 0 1-5,S 0 1-5,S 1-5,S	-2127405 .6788404 -1803404 -8227404 -2442404 -4372403 -2543404 -3911403 -2306403 -1432403 -2286403	.1364+04 .4437+03 (0.147R	.3146+02 1-1790+02 .1426+02 .4277+02 .3047-00 .7156+02 2381+02 .5081+02	.1805+01 .8129+01 .6001+017146+01 .1094+02 .7015+01 .9054+01	1-5165163405 1-5157248+04 09021+04 1-5162842+05 1-515 .3604+04 02434+04 1-51612304+09 1-515 .1014+04 0 .6253+03 1-5164161404 1-5159737+02 0 .7607+03	5280+044664+03 1644+04 (0.147R 2373+047459+03 2390+031210+04 3360+041577+04 (0.557R 1320+04 2401+04 2401+04 2401+04 (0.757R	1336+04 1336+04 1181+04 .1695+04 .1373+04 .2576+04 .2401+84	2865+04 6710+03 8728+03 .9708+83 .9832+03 .1549+04 .1721+04
1-5,5 0 1-5,C 1-5,S 0 1-5,C 1-5,S 0 1-5,C 1-5,S	2127405 .6788404 1803404 8227404 .2442404 4372403 2543404 .3911403 .5934402 7997403 2366403	.1364+04 .4437+03 (0.147R -1640+03 -3173+82 .5275+03 .8583+02 (0.325)R .1318+022303+02 .1920+03 -1558403 (0.557R .2049+04 -3851+02 .15592+03 -1656+03 (6.757R -13583+02 -34421+02 .1257+03 -1042+032+03 -1042+0	.3146+02 2.1790+02 .1426+02 .4277+02 .3047~00 .7156+02 2381+02	.8129+01 .6001+01 7146+01 .1094+02 .7015+01	1-5.6516.3403 1-5.6	5280+044664+03 6271+041664+04 (0.147R 2373+047459+03 280+047459+03 (0.325)R 2390+031210+04 -3360+041577+04 (0.557R 	1336+04 1336+04 1181+04 .1695+04 .1373+04	2865+04 6710+03 8728+03 .9708+83 .9832+03
1-5.5 0 1-5.0 1-5.0 1-5.0 1-5.5 0 145.0 1-5.0 1-5.0 1-5.0 1-5.0 1-5.0	-2127405 .678404 -1803404 -28227404 .2442404 -4372403 -2543404 .3912403 .7934402 -7997403 -2366403 -2286403 -2286403 -2207403	.1364+04 .4437+03 (0.147R	.3146+02 1-1790+02 .1426+02 .4277+02 .3047-00 .7156+02 2381+02 .5081+02	.1805+01 .8129+01 .6001+017146+01 .1094+02 .7015+01 .9054+01	1-5.6516.3403 1-5.7248404 09021404 1-5.62824405 1-5.5163403 1-5.6163404 02434404 02434404 02434404 1-5.5161404 1-5.59737402 07667403 1-5.6164403	5260+044664+03711+041644+04711+047459+037459+037459+037459+037459+037459+037459+037459+037459+037459+037459+037459+037459+03	4096+04 1336+04 1161+04 .1695+04 .1373+04 .2576+04 .2401+84	2865+04 6710+03 8728+03 .9708+83 .9832+03 .1549+04 .1721+04
1-5.5 0 1-5.0 1-5.5 0 1-5.5 0 1-5.5 1-5.5 1-5.5 0 1-5.5	-2127405 .6788404 -1803404 -8227404 -2442404 -4372403 -2543404 -3911403 -2306403 -1432403 -2286403	.1364+04 .4437+03 (0.147R -1640+03 -3173+02 .8563+02 (0.325)R .1318+02 -2303+02 .1920+03 (0.55)R .2049+04 -3851+02 (1.592+03 -1.656+03 (0.85)R .1257+03 -3421+02 .1257+03 (0.85)R	.3146+02  1.1790+02 .1426+02  4277+02 .3047-00  .7156+022381+02  .5081+02 2.2778+02	.1805+01 .8129+01 .6001+01 7146+01 .1094+02 .7015+01 .9054+01 .1619+02 .3140+01	1-516516.3403 1-51772484-04  09021+04 1-51728424-05 1-5173004+04  024344-04 1-51712304-05 1-5171014-04  0 .6253+03 1-51741614-04 1-5171014-04 1-5171014-04 1-5171014-04 1-5171014-03	5280+044664+03 649+04 (0.147R 2373+047459+03 2390+031210+04 2390+031210+04 2577+04 (0.557R 	-,4096+04 -,1336+04 -,1181+04 -,1695+04 -,1773+04 -,2576+04 -,2401+84 -,1416+04 -,1487+04	2565+04 6710+03 8728+03 .9708+83 .9832+03 .1549+04 .1721+04
1-5.5 0 1+5.0 1+5.5 0 1-5.0 1+5.5 0 1-5.0 1-5.0 1-5.5 0 1-5.	-2127405 .678404 -1803404 -1803404 -2427404 -2427404 -24372403 -2543404 .3911403 .5934402 -7997403 -12366403 -1432403 -2207403 .8502402	.1364+04 .4437+03 (0.147R -1640+03 -3173+02 .8563+02 (0.325)R .1318+02 -2303+02 .1920+03 (0.55)R .2049+04 -3851+02 (1.592+03 -1.656+03 (0.85)R .1257+03 -3421+02 .1257+03 (0.85)R	.3146+02 1-1790+02 .1426+02 .4277+02 .3047-00 .7156+02 2381+02 .5081+02	.1805+01 .8129+01 .6001+017146+01 .1094+02 .7015+01 .9054+01	1-5.6516.3403 1-5.7248404 09021404 1-5.62824405 1-5.5163403 1-5.6163404 02434404 02434404 02434404 1-5.5161404 1-5.59737402 07667403 1-5.6164403	5280+044664+03 6271+041664+04 (0.147R 2373+047459+03 280+047459+03 (0.325)R 2390+031210+04 -3360+041577+04 (0.557R 	4096+04 1336+04 1161+04 .1695+04 .1373+04 .2576+04 .2401+84	2865+04 6710+03 8728+03 .9708+83 .9832+03 .1549+04 .1721+04

NOTE- DIVIDE LISTED VALUES BY 100,000 TO OBTAIN TRANSFER COEFFICIENTS

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## TABLE 8.

#### (D) MP = 0.3 r1 = 0.001 (FOR MU = 0.25.0.4.0.5) r2 = 0.000447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

		FP = 0.00044	7(1+MU)**2 (FOR MU =	0.7,1.0,1.47			
1116 Un 5	4 VALUE MATTO, AU = 0.25		N.C 01	1 5	AUVANCE RATIO, MU # 8.7		
U1/6,110g	(0.0)k			4115+05	(0.0)R		
1-010 -1110710	~.1599+03 ~.2340+03	3598+0229	439+02		5372+04 1077+05	2.3536+04	±.4392+04
4-540 4644 4160	Jub+02 1805+03				3889+04	3173+64	3065+04
	(0.14)2				(0.147R	***************************************	
075,50005 1-5:0175,0009	715+02 .5329+01	1384+01 .6	989-00 1±5.0	2116+04 5047+04 -	30/5:07 - 3017:00	77.7.67	4004.05
1-010 -1100010	593+028407+01	.4405-00 .1			• 2065+03 - • 7217+02 • 5276+63 - • 3729+03	.3317+83 .4080+03	.6281+03
2 3.3	(0.325)).		1-37.	-11305104	(0.325)R	14080403	.2744403
0 1 0 + 1 2				.1210+04			
1-0:0 -1:0:4:0	5052+02 .3057+02 .7058+02 .1722+02		997+01 1-5,6 648+01 1-5,5		.3273+02 .1854+04	-7106+83	.1587+04
1-21%+% 4400	(u.55)!!	.4060401	648+01 1-5/5	2163+04	.1615+64 .2131+03 (0.557R	•9966+83	.1401+94
.11.04.0			0	.1364+04	(0.33)K		
1-716 16 7167			374+01 1-5,0	.2060+04 -	··1267+04 ·3112+04	•3 <del>9</del> 98+83	<b>2610+03</b>
1-010100 1100	5.1+02 .7211+02 (u.75)K	.0745+01 .2	867+01 1-5/5	52771+04	.2245+04 .2359+04	68503+61	.2747+03
0 (1450415	(0.75)16		0	.1452+04	(0.751R		
1-310 .31/6419	012+031299+01	.6416+012	U71+01 1÷5,0		2771+84 -2990+84	1448+04	3087+04
1-012 000100	.110+02 .1099+03	.1925+025	196+01 1-5/		-2361+04 -4696+04	1124+04	2043+84
	(0.85)10			40.4.00	(0.857R		
0 +64€4413 1-5≠€ +8073+65	13-3+031/90+02	.4021+011	067+31 1-5,0	.1066+04 .7757+03	2240+041891+04	.1441+04	+.2808+04
1-315	• 21.46+Uz • 11.45+05				·1627+04 •3757+64	£8+9996+63	2076+04
						-43794100	-12070704
THE UK S	MAYABLE MATTO, AU = 0.4		N.C OI		ADVANCE RATIO, MU = 1.0		
	(0.0)1				(0.0)R		
U →	(0.07)		0	60b9+05	(0.07K		
1-5005000000	3426+031242+04				1384+053845+05	÷.1612+05	1988+65
1-242	7:3+038260+03	<o28+031< td=""><td>798+03 1-57</td><td>51638+05 -</td><td></td><td>810f+04</td><td>4708+04</td></o28+031<>	798+03 1-57	51638+05 -		810f+04	4708+04
U10164	(0.14) ನ		0	- 00.04.05	(0.147R		
1-010	24, 7+62 .3105+02	2467+021		4428+04 C1153+05 -	1475+041419+04	.1425+84	.2924+84
1-5.5 ".0(	520+030634+02				./247+031303+04	.8247+83	.3093+03
	(١٠٠٥ عند) ١١				(0.325)R		10070110
0 .7.00.402	1015+03 .2039+03	2326+024	217+02 1-5	•3791+04			-14
1-3:0 -:111100	•50c1+03 •5840+02			C •2828+04 5 <b>-•</b> 3697+04	• 3540+03 • 7133+64 • 3827+04 • 7899+03	.4819+04 .2770+04	.5£24+6¥ .8£97+83
1-3/3 11000114	(U.55)H	***************************************	1-37	3309/404	(0.55)R	.2170+04	.8291+03
0			0	.4511+04			
1-016 10000100	1954+03 -1057+03		3723+01 1-5		•5463+03 •1318+05	61378+04	1036+84
2-000 -0120000	.,596,403 .4122+03 (4.75)K	.2403+022	2848+01 1~5.	52953+04	•9236+04 •4833+04 (0.757R	·4233+02	.1443+04
·////	10173711		G	.2690+04	(0.757R		
4-010 ·7012+110	040+039929+01		1602+02		-:1130+04 .1366+05	÷.1229+04	1479+05
1-010 100010	.c411+u3 69ub+03 h(d6.0)	.1488+031	765+02 1-5.	51556+04	.7119+04	÷.3379+04	.3838+64
	(0.85)		Ú	.1270+04	10.857R		
1-010 -9077100		.1639+03 .1	017+03 1-5,		1268+04 .8712+04	±.1069+84	1269+05
1-000 -01/. 100	•5429+03	.1564+031	155+02 1-5.	57920+03	.3031+04 .4975+04	2.2889+84	.3356+64
HILL OIL S	VALLE RATIO, MU = 0.5						
	MAYTICE RATION HO - 015		N.C O		ADVANCE RATIO, MU = 1.4		
	(0.0)H				(0.0)R		
U	4.4.	1500.07	0	9767+05			
1-5:0	001+042993+04 7917+031286+04		.630+03 1-5, 2361+03 1-5,	C1365+06 S5970+04	-4806+044466+05	±41354+65	+.1073+04
1-3/3 -1/21/04	(U.14)R	-10333703	1-5,	559/0+04	3653+05 .2278+65 (0.147R	-41315+84	.1531+05
012/-+04				1060+05	1002.000		
1-500 -00/07404	4546+02 .5136+02 259+031761+03				4928+84	.2152+04	7077+81
1-51301/165	-2569+U31761+03 (U.325)R	.02/6+02 .6	5664+02 1 <b>-</b> 5,	55260+04	4520+031972+04 (0.325)R	<b>6166+03</b>	2408+04
0			0	·68b5+04	(0.3E3/R		
1-516 . /1+110	1953+03 .4867+03		633+02 1-5,		-43218+64 .7348+64	•5146+64	.9520+03
1-515 -11.5/+64	.0154+03 .1048+02 (0.55)R	·1474+03 .1	927+03 1-5,	S690U+04	.9584+048376+04	41354+04	8738+04
U +4+13+00	(0.35/K		U	.7+68+04	18.557R		
1-2:0 -121:0+04	7952+83 .5874+03		1444+02 1-5,		1631+04 .1944+05	±61229+04	.1902+04
1-0/5 15/14+04	.0743+03 .8624+03	.2095+02 .2	925+02 1-5,		.9372+045564+64	4721+04	.2292+04
U .1203+U4	(U.75)R		0	unt 1 . n	(0.75)R		
1-5:0 -1132+64	1401+04 .2245+03	.5999+03	6599+02 1±5,	.4853+04 C .2758+04	·1536+04 ·2125+05	4 2024-04	0.75.00
1-3131013+04	.0497+03 .1621+04		1079+03		•1536+04 •2125+05 •0165+04 -•5134+04	÷.2923+04 ÷.1263+05	.2875+04 .1833+05
	(0.857R				(0.857R		
1-3+6 .631.3+03	1U25+04 .1155+02	.5648+03	9269+02 1-5,	·2613+04			
1-5/6366/403	·+655+03 .1308+04	.1683+033		C .5928+03 S7494+02	•1588+04 •1317+05 •3373+04 •-3637+84	±,1602+84 ±,9557+84	.1983+04
-			UES BY 100,000 TO OBTA			-63357704	.1470+05
	1072-	TITLE CIPIED VAL	OCS ST TOUTOU TO OBTA	AN IMANSPER COEFF	ICIENTS		

#### TABLE 8. BIS CYCLIC PITCH TRANSFER COEFFICIENTS FOR K HINGELESS BLADE

#### (E) MP ± 0.3 FP ± 0.4025 (FOR MU = 6.25.0.4.0.5) FP ± 0.00112(1+MU)+02 (FOR MU = 6.711.011.4)

				FF - ••	***************************************						
N.E OK		AUVANCE RA	TIO, MU ± 0.25			N.C OK		ADVANCE F	RATIO, NU = 0.7		
	-		8.0)R			4	-		(0.0)R		
- 0	1196+05	,	•••···				2970+05				
1-5.6	-42979+05	-61791+83	-,2333+63	-43990+82	200 <b>0+0</b> 2	1-9.C	4.6084+05	+46825+84	1421+05	<b>3577+84</b>	4.2464+04
1-5.5	9557+03	1437+83	7246+02	3051+92	2379+02	125.5	5794+04	-19915+03	3024+83	·2299+83	. 2201+04
. 3.3	************		0.147R		12377.52				(0.147R		
. а	1777+04	•	W.17/K			9	-44936+04				
	4321+04	-43472+82	1355+02	4265+81	+.430S+9±	125.C	1062+05	9698+83	1046+64	-,2452+63	.2464+03
	-,6745+02	65473+82	1186+02	-437a£+0£	4.2052401	145,5	-,2044+04	+4484+03	4296+65	.6445+82	3356+03
1-3/3	-,0/45402	13413105	0.325fR	-60141141	-12036101			***************************************	(0.325fR		***************************************
	1521+03	,	******			· 8	.6393+03				
	2921+03	<b>4</b> 64311+02	.4678+02	.5176+81	.4770+01	1-5,€	.9972+02	·1879+83	.2548+84	.1081+84	. #204+04
	4599+03	68336+02	.7552+61	1913+01	.3201+01	1-5.5	2454+04	·1565+84	3729+03	3598+02	4,5401+84
1-373		10030.42	0.557R	11710.01					(0.557R		••
. a	·2275+03	•					.1480+04				
1-5.C	1243+03	1183+83	·6369+82	61347402	.2497+81	1-5,C	.1567+04	7203+03	.4476+84	41564+84	2284+02
1-5,5	5088+03	1043+83	.4869+82	4779+61	.2945+01	149,5	2890+84	-2206+84	1205+04	-43578+03	.9433+03
- 4		1 10 10 10	0.757R	**********	***************************************				10.757R		
8	.4249+03	•				•	.1103+04				
1-5,C	.2153+03	441486+83	44809+02	.1590+82	.2449-86	1-5.C	.1274+04	1444+84	6404 <b>7+8</b> 4	41Z1S+84	1375+84
	2917+03	47662+02	.7160+02	.5364+81	2048401	1-5.5	1972+04	-1741+84	.2274+84	=. 5£25+63	.2968+84
			0.857R						10.857R		
•	·£970+03					0	•5870+03				
1-5.C	.1445+03	··9705+82	.2641+02	.1622+02	.3048^01	1-5,C	•6962+03	<b>+</b> v9939+83	-2347+84	(6629+83	<b>1</b> 061+84
1-5.5	1364+03	44163+82	4838+02	.3399+61	4.4985486	1-5-5	1023+04	+9622+83	.1550+04	*43338+03	.1507+44
N.C OR	S	AUVANCE RA	ATIO: MU + 8.4			N.C OR	S	ADVANCE I	A.1 ± UM .OIYAN		
							•				
			(a.0)R						lo.o)R		
	1884+05					0	4553+05				
1-5-0	3821+05	-49118+03	1222+04	-42167+63	4412+02	1-9,€	9575+05	-61721+05	3292+65	£_8879+84	-,1656+84
1-5.5	1737+04	17364+02	5136+03	1333+93	~. 1639+05	125.5	1059+05	4603+84	.4899484	42708+84	.4119+84
1-3/3			\$8.147R	***************************************			***************************************		10.147R		• • • • • • • • • • • • • • • • • • • •
	2757+04					8	8993+04				
	5429+94	1608+03	6244+02	3123+62	4.6007+05		-,2103+05	3455+84	4668+84	2.4978+63	-,9380+02
1-4.5	7192+83	1375+03	8392+02	-41587+82	3972+01		4106+04	.7344+03	1811+03	44897+83	1070+04
2 3.3	*********		te.325FR	*********					14.325#R		••••
	1503+03		,			.0	.2382+04				
	9296+02	1554+03	.2975+63	·2264+82	.2569+01	1-9,€	-6678+82	67507+83	.7613+84	42 <del>598+8</del> 4	.4992+63
125,5		62983+03	.5392+02	+1180+82	. 9469+02		3933+04	64112+84	2703+64	449112+03	2783+03
1-3/3		12700.10	LD.557R	******		- 0.0			(0.557R		•
	.4322+03					6	.4256+04				
1+5,€	•5465+03	4437+85	.3232+83	.1122+03	. 2876+92	1-5,€	.3122+04	·1368+83	.1474+85	.2615+64	.£910+ <b>9</b> 4
125.5		43508+83	.3456+03	3276+82	.8050400	1-5,5	3644+04	65079+04	2638+84	£.3152+04	.2063+84
1-313		10300.03	(8.75TR	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 0.0	******		(8.757R		•
	+6864+03						£2648±0 <del>4</del>				
145,6		5672+03	.2195+83	.1582+83	.1443+02	1+9,C	.1882+04	•7977+83	.1309465	•6777+03	.9478+85
	6450+03	62307+03	.5078+03	.3515+02	<b>5</b> 612+02	1-9-5	178e+04	.3277+64	1083+64	443596+04	5719484
2-3/3	-10455105		te.a5tR						(8.857R		
. •	.4673+03						.1279+04				
1-5,C	3617+03	4.3721+03	+1444+03	41060+33	.9557+01	1-9,€	.8658+03	63702+85	.7378+64	+9186+82	,5438+83
149,5		41182+83	.3430+05	42527+02	4556402		7606+83	+1634+84	-63924483	2.2169+84	.5912+04
							,				
N.E OR		ADVANCE R	ATIO: HU # 8.5			H+E OR		ADVANCE	RATIO: HU ± 1.4		
*****	-										
			te.0)R						(0.0)R		
٠.6	2352+05						7387+05				
	4579+05	2656+64	2916+04	6505+03	4503+03		1022+06	-69924+89	3281+85	.2164+83	. 3809+04
145,5	<b>4.3545+04</b>	44385 <del>9+</del> 83	8960+83	3750+03	4.2803+03	1+5,5	1476+05	~+ 1606+ <b>03</b>	-2879+69	474 <b>82</b> +84	-,1451+64
			10.147R	•					10.14fR		
	3356+04			_		. •	+. 1892+05				
	6419404	<b>~</b> •2978+83	~• £963+03	-46930+82	.3648+02	1=5,e	~·2559+05	-63180+04	7233+84	41083+84	¥356÷03
125,5	1181+84	+2093+85	4879403	449132+81	. \$324466	1+5,5	7481+04	-44108+03	+3556+84	41 <b>886+8</b> 4	1418+84
			10.325FR						16.325FR		
. 8	7990+01						· 2693+04				
1-8.6	• 9642+02	1792+63	.4594+83	.1048+63	.1693+03	1-5,€	.4220+84	<b>*</b> 4693 <b>9+83</b>	.6209+84	44868+43	-,2309+84
145,5	2586+04	·6879483	.2209+02	48457+ <b>8</b> 2	.9452+03	149,5	6956+04	68012499	6079+45	2.255£+\$4	4,9455+83
_			10.557R						(0.85†R		
. •	-6804+03					•	•6981+84				
1-5-6	.9191+83	++7193+83	.8863+83	43509+63	4.5353+02	145,6	.7815+04	68658+93		¥.4686+04	.2043484
1-5.2	1765+04	47 <b>739+83</b>	.7017403	44524+ <b>\$</b> 2	. 267 <b>a</b> +02	129,5	<b>→.</b> 4468484	67074+84	1663+93	2,9484+6\$	.9844+03
			(0.757R						ie.757R	•	
•	-8784+63					•	·4194+04				
125,€		1913+84	.6903403	43876+83	-, 2 <del>296+</del> 03	1-5,€	·2927+04	<b>61349+8</b> 4	41393 <b>48</b> 8	#445B0+\$#	<b>.4798</b> 484
1-9,5	1101+04	+5462+83	.1438+84	-,2944+82	5725+82	1-5,5	6613+03	62066+04	-46499403	#41016+8S	.2043404
			le.a57R						(0.857R		
	-5732+03						. 2950404				
1-5,C		-+6798+83	43595+63	42526+03	1831+05	1-5,6	.5226+03	\$8303+03	.7736+04	# ( 4 0 2 2 + 8 4	,3£1740 <b>4</b>
145,5	5466+03	+3966+93	.7829+83	143270+02	4348+02	1-5,5	.1387403	44758+83	4166+64	2 ( BEE 9+04	.1311+04
							-				

## TABLE 8. HIS CICLIC PITCH TRANSPER COEFFICIENTS FOR A HINGELESS BLADE

#### (F) MP = 0.3 (FOR MU = 0.25,0.4,0.5)

		CF = 1		(FUR MU = 0	.25,0.4,0.5)				
N.E OR S	AUVANCE RATIO, MU = 0.25	//· = .	30047(1+-074-2	1110 01		AJVALICE R	7.0 = UM +CITA		
					-				
6765+04	(B.O)R			U	1 1 1 1 0 0		(U.0)R		
145,C1674+05	1359+03607u+02	4668+61	2998+01	1-5:4	3300+05	019+04	4361+04	3600+03	.2084+03
123,5 .1828+04	13573+03 .1093+03 (U.14)8	.1507+02	-,2275+01	1-212		. +160+04	•5771+04 (u•14)8	•2947+64	.7230+03
02578+04	(0.1478			U	/20.3+04		(0.14)8		
1-5,€6435+04	4312+021706+02	2782+01	1184+01	1-5,0	100100	2559+04	1286+04	±.1492+03	4679-00
1-5,5 .4905+03	•1664+83 •235u+n2 (0•325)R	.2228+01	1160+01	1-5.5		· ८u႘4+04	.1257+04 (0.325)R	.6852+83	.3429+02
·06699+03	(U-325)R			U	1400+04		(U.325)R		
1-5.C1899+04	1011+02 .1031+02	2344+01	5501-00		4002+04	409+03	.8462+03	÷.1213+03	1403+03
1-9,32613+03	•1144+632773+02 (0.55)8	7036+01	1014+01	1-5/5	2724+04	1256+04	1890+04	<del>-</del> .1092+04	4140+03
-0 +3710+02				U	.5424+03		(U-55/R		
1±5,04818+03 1±5,54527+03	3735+02 .2559+02	1131+01	6850-00		6402+03	4038+03	.1808+04	+.2615+03	1067+03
1-5/5452/703	•1155+833861+02 (0.757R	1132+02	1211+01	1-5,5	-,2840+04	• 4090+03	2793+04 (u.75)R	2122+04	3062+03
.6 .1826+03				U	£0+80ců.				
1-5,C7396+02 1-5,52664+03	-44554+62 .2050+02 .7617+022118+02	.9453-01 7905+01	5931-00	1-5.C	.1579+03	3855+03	•12do=04	2540+03	1630+02
1-3/3 -12004703	(0.85)R	/ 995+01	8592-00	1-5,5	1o7d+04	·+573+03	1644+04 (U.8518	1575+04	3150+02
0 +1125+03				θ	.3412+03				
1-5,C9144+01 1-5,S1235+03	-62659+62 -1061+62 63802+629528+01	.2000-00 3970+01	3229-00 4382-00		.1307+03 7944+03	3543+03 .2048+03	.6425+03 ~.7646+03	÷.1399+63 ÷.8015+03	.1581+01
	9328+01	3970701	-,4362-00	1-5/5	-17944403	12048703	/040+03		.1612+02
1.E OR S	ADVANCE RATIO, MU ± 0.4			N.C OX		AUVANCE F	RATIO, MU = 1.0		
	(0.0)R				-		(0.0)R		
.01095+05				Ü	2811+05		10.07K		
1-5.C2202+05	9226+03 6322+03	1099+03	2716+02	1-5+C	5642+05	1274+85	4066+84	.5204+04	1117+03
1-5,54958+02	.8128+03 .4650+03	.1648+03	2809-98	1-5.5	8770+04	¥0629+04	.1254+05 (0.14)R	÷+3780+03	3123+04
04143+04				บ	1209+05		10.1478		
1-5,C8366+04 1-5,S4745+03	3431+031550+03	3530+82	7480+01		2671+05	++5452+04	1821+04	.1206+04	-,1638+03
1-3/54/45+03	63999+63 .7792+02 (6.325)R	.2672+02	2739-00	1-5.5	5450+04	-5061+84	.3123+04 (0.325)R	1410+02	<b></b> 9562+03
.01020+04				0	1817+04		10.323/1		
1-5.C2265+04	1360+63 .1434+83	.9362+01	.3430+01	1-5,C	9076+04	1160+04	4498+63	2789+04	2702+03
1-5.51008+04	•2958+83 -•1516+63 (0.557R	±•7256+02	7418+01	1-5,5	4239+04	+3509+84	4372+04 (9.557R	·1592+03	.9190+83
0 .1198+03				0	+2009+04				
1+5,C3500+03 1-5,S1076+04	2106+63 .2686+03	-5492+82	.6177+01	1=5.C	1967+04	3878+03	.2755+02	45912+64	4.3040+63
1-5/510/6+04	12708+031591+03 (9.75)R	±.1212+03	2648+02	1-5,5	3365+04	¥2596 <b>+8</b> 4	7151+64 (0.757R	20+604104	.2\$26+04
0 .3218+03					.1606+04		(***/3/K		
1-5,C .7895+02 1-5,S -,5798+03	2068+03 .1905+03 .1571+035894+02	.5470+02 8651+02	.3620+01	1-5.C	2658+03 1712+04	5744+63	.4045+62	±-4562+64	1.1785403
1-3/3 -13/90103	(0.857R	8051+02	±.2704+02	1-5/5	1/12+04	61279+84	4436+64 (8.857R	±.2561+03	.1608+94
0 .1925+03					·7766+03				
1-5,C .7294+02 1-5,S2619+03	-1159+03 .9592+02 .7440+021991+02	.3033+62 4378+62	.1671+01 1516+02	1-5.C	4874+02 7624+03	++3566+03	.1672+02	2334+84	8368+82
1-3/32019+03	.74407021991702	43/8+02	1516+05	1+5/5	/624703	•5651+03	209g+64	2.1570+63	.8156+83
N.C OR S	ADVANCE RATIO, MU ± 0.5			N.E OR	S	ADVANCE	RATIO: MU # 1.4		
	(0.0)R				-		(0.0)R		
01396+05					5207+05		(W.U/K		
1-5,C27U3+05 1-5,51558+04	-:2195+04 -:1558+04 -1284+04 :1169+04	3411+03 .4391+03	<b></b> 2669+02 •3544+02		±.7739+05	++2039+05	4042+63	£.5275+02	8323+04
	(8.147R	.4591705	.3377702	1-5,5	3053+05	-6613+64	.1124+05 (0.147R	£,2186+85	4.8373+04
05220+04 1-8,C1020+05	7705147 - 7707147			•	2512+05		10127/1		
1-5/51257+04	+.7795+033793+03 66538+03 .1875+03	1040+03 -8705+02	4.1273+02i 4301+01	1+5.C	3993+05	9842+64	2256+04	2.1699+03	2308+04
	(0.325†R	************	,4552.112	1-212	1847+05	•5042+04	.1968+04 l0.325}R	2.6150+84	2570+04
01174+04 1-5.C2605+04				8	5489+04		(01323)!!		
1-3:51656+04	2193+03 .3583÷03 .5169+634140+03	+5248+02 1754+03	4351+01 364£+02	125.C	~.1396+05	2482+04	4201+04	-41156+04	.3167+04
	(9.557R	12.51.00	-,30+2+02	1~5/5	1099+05	•4557+04	6436+84 (0.557R	.7558+64	.2556+04
0 .2603+03 1-5:C2222+03	4.406B4A3	1900.03	2405104	0	.2979+04				
1-5/51707+04	+.3268+03	.1709+83 3481+83	.8685+01 4489+02	1±5,C	2365+04 6021+04	-5784+02	3619+64	2.3211+64	.5711+04
	(0.757R		*******	1-312	6021+04	*3499+54	9306+84 (9.757R	·1284+85	.4842+04
0 .4485+03 1~5.C .2212+03	_/ ICED+48		4.00 - 1.00	8	·2593+04				
1-5.C .2212+03 1-5.S9563+03	-:3550+63 .4705+63 -:2806+63 -:1669+63	-1539+63 2748+63	.1246+02 2637+02	1-5.C	7936+02 2261+04	-:2972+61	1668+84	2537+64	.3708+04
	(0.857R			1-5/5	2201404	•1580+84	5448+84 (9.857R	.7824+84	.3120+04
0 .2562+03 1-5.C .1485+03	2001469 0764457	. 04.4.4.4.	****	8	.1259+04				•
1-5/54420+03	2041+03 .2366+03 .1327+035833+02	+8278+82 -41437+03	.7391+01 1237+02	1-5.C	.4765+02 8939+03	4932+82	6723463	£41497+84	.1977404
			STED VALUES BY 10			• 6622+83	2508+84	.3655+84	.1485+04

## TABLE 8. 515 CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (G) MP = 0.5 FP = 0.001 (FOR MU = 0.25,0.4:0.5) FP = 0.006447(1+MU)++2 (FOR MU = 0.7:1.0:1.4)

N.C OR S	AJVANCE I	RATIO: MU = 0.25			M.C UK		AUVANCE F	RATIO, MU = 0.7		
		(0.0)R						(0.0)R		
02040	+05				6	5761+05		1-10/11		
1-5:04470	+02 ./542+03	2524+03	.2795+02	.2623+02	1-5:0	8004+05	• +928+04	1185+05	3730+64	6534+04
1-5.52243			1639+02	9246+01		3352+04	7727+04		÷.5329+04	3443+04
		(0.147R	*********					(0.147R		-,5445744
01244	+ U.u.	1012.7.1			ø	20<>+04		10121711		
1-5,01904		.2187+02	2078+01	.4349+01		4000+04	. 9326+02	1349+03	.3370+03	.9162+03
1-5:54250			8202+01	.9082+01		1750+04	-1036+04	8273+03	9683+03	.1924+03
1 3/3 14230	.03 11030.03	(0.325)R	10202+01	.3002+01	1-3/3	-11/50/04	*2030*04	(0.325)R	*4000400	*1754403
02208	+111	TOTSESTI			0	.2300+04		(UISES)		
1-5:0 .4040		•6912±02	.2267-00	.3719+01	1-5.0	.3212+04	1382+04	.2188+04	.3878+03°	.2384+04
1-5/56090		.3363+02	.9551+01	.1012+02		3310+04	-3002+04	6627+03	.1979+04	.1437+04
1-3/3 -10090	113/9103	(0.55)8	.9331701	. 1012702	1-3/3		13002104	(0.557R	*13/3+04	.143/404
0 .2198	107	(0.55)//			0	.2152+04		(0.551K		
1-5.C .9552		.2602+02	.1714+02	3386-00	1-5+6	.4002+04	3849+04	•3976+04	.5911+03	2585+03
1-5.55894		1363+03	7563+01	.3706+01		3525+04		.3152+04		
1-3/3 -43092		(0.757H	1/303701	.3/06401	1-3/3	3323704	•2856+04	(0.75)R	÷.6146+03	.5939+03
0 .1069	1 · D.:	(0.757K			Ú	.1795+04		10.751K		
1-5,0 .800		8792+02	.2356+02	.1477+01	1-5,€	11/93104	4778+04	2505.00		
1-5,52029			•3717+02	9650+01		.2367+U4 2369+04	-4778404	•3585+04 •7392+04	-3591+04	4491+04
1-3/32029	103/703	(U.857K	*3/1/102	9650+01	1-513	-+2369704	.2404704	(0.857R	3348+04	3539+04
0 .1065	+04 •	(U.85/K			0	·1214+04		(V.85/K		
1-5,C .44co		9900+02	·1632+02	0.06.04	1-5,(	.1004+04	-, 3302+04	.2137+04	-4	
1-5/52749				.2686+01					3841+84	-,4132+04
1-5/52/49	+027875+02	·1350+03	.3931+02	1076+02	1-5/5	1296+04	•1615+04	+6016+04	2531+04	3740+04
AL PLANE										
NIC UK S	ADVANCE I	RATIO, MU = 0.4			N.C OR		ADVANCE P	RATIO, MU = 1.0		
		4				-				
	_	(U.D)R						(0.0)R		
0 - 4238	+05		_			~.75v9+05				
1-5:05857		1605+04	.2799+02	.1226+03		1274+06	1498+84	3802+05	- 1519+05	-,2267+05
1-5.56297	+040583+03	9564+03	÷.2303+03	2886+03	1-5,5	9942+03	2427+05	.3320+04	<b>1148+8</b> 5	4875#63
		(0.14)R						(0.147R		
ەد17a					0	4459+04				
1-5,02329		·1015+03	5922÷02	.1063+01		9270+04	1085+04	1912+04	-1861+04	.2508+84
1-5:51009	+04 +3604+03		.4776+02	.9083+02	1-5.5	3561+04	+1398+04	2123+04	1902+84	4570+03
		(0.325)R						(0.325)R		
0 .2160					ð	.6207+04				
1-5,€ .1180		.3833+03	7354+02	4840+02	1-5·C	•68o5+04	1585+04	6827+04	.5682+84	.9434+04
1-5,51559	+04 +5835+63	•7496+02	.2208+02	.9042+02	1-5:5	5427+04	• □884+04	2944+04	.4688+04	8725+03
		(0.557R						10.551R		
0 +4699					Ð	-6017+04				
1-5,0 .21≈0	+041559+04	.1901+03	.1516÷03	2552+02	1-5,0	.6245+04	9129+03	.1431+05	.1387+09	.2999+62
1-5,5 -,1462			3874+01	2114+02	1+5/5	2877+04	0004+04	.3162+04	-+2079+04	.1741+84
		(0.75)R						(0.75)R		
0 ∙157≥	+04				9	.2806+04				
1-5+C +17u5	+04 +.1517+84	4131+03	.4421+03	.2011+03	1-5.C	.2052+04	4689+03	1466+05	7400+03	1.1697+85
1-5,5 -,4944	+032982+03	.1221+04	.3398+03	1162+03	_	1290+04	.5462+04	.7230+84	±.9477+04	.6283+84
		(0.857R		*				10.857R	*********	
0 .1525	+04				0	-1175+04				
1-5,C .8763		4908+03	.3894+03	.2298+03	1"5.C	•9797+03	±+4959+ <b>03</b>	.9165+84	-4774+83	4.1508+95
1-5.53513		,9409+03	.3881+83	9771+02		8145+03	-3757+04	•5245+84	7624+84	.5226+04
		**********		***************************************	- 0	***************************************	1013114	V3E 10 . V T	-11024187	. 3220144
N.C OK S	ADVANCE F	RATIO, MU = 0.5			N.C OR	S	AUVANCE F	RATIO, MU = 1.4		
	ADIANCE	(A110) NO - 013					HID TANTOL I	WITO WO - 114		
		(0.0)R						(0.0)R		
04949	+0×				6	1121+0p				
1-5,07001		3386+04	.3523+03	.1382+02	145.C	1348+06	1650+09	3145+05	6924+04	2006+84
1-5/5 - 6791			÷⊾8802+03	1347+04	145,5	.5396+04	- 5209÷05	4264+05	7513+04	.1984+05
1 3/3 10/71	704 -11025104	(0.147R		-,1541104		1007-104	10207.03	(U.147R		.1904103
02061	102	(0.14/K			0	9997+04		(0.14)K		
1-5,02379	+042340+03	.2058+03	1953+03	6206-00		1035+05	2099+03	5101+64	0 <b>25</b> 0 . 60	/End. 00
1-5/51327		2687+03		.1863+03	1-516	6425+04			.2574+04	6902+03
1-3/3132/	+04 •4672+03		.8361+02	.1863+03	2 3/3	-10423704	•5944+03	2926+04	.2035+04	3138+04
0 .4934	+0.4	(0.325)R			6	.1010+05		(0.325)R		
		7064403	÷.2923+03	.5920400	1~5,0	•1652+05	120/40	2700101		
1-5,6 .1966		.7054+03		.5920~00 .4277+03		1002+05	334+04	•3748+84	2936+04	.1294+04
1-5.52254	+04 •1079+04	9759+02	.2467+03	.42//+03	1-312	1000+05	1231+05	1374+05	•4397+04	1018+05
4	. 6.	(U.557R			ŧ	471		10.557R		
0 •1144			-8		1-5,C	6740+04				
1-5.0 .2695		-3865+03	.3901+03	1389+02		.1145+05	2611+84	·1530+65	5690+04	.2027+04
1-5,52331	+04 +0604+03	.1367+04	.1531+03	-,2595+02	1-5,5	1709+04	•5327+84	6622+04	÷.6917+04	.1684+04
_	_ <del>-</del>	(0.757R			_			(0.757R		
8 .1648						3543+04				
1-5.C .2479		3745+03	.1342+04	.2890+02	1-5.C	.2372+04	.3140+84	1595+05	÷.6613+04	3134+04
1-5,51155	+04 4256+03		9233+02	9884+03	115,5	.1007+03	·2597+ <b>0</b> 4	4998+64	1543+05	.1561+05
		(0.857R						(0.851R		
0 .1273					. 0	-2069+04				
1-5.C .1611		4924+03	.1208+64	.2431+02	1±5,C	.1005+03	13128+84	•9426+04	4.3611+04	3389+04
1-5.54161	+030287+03	·2658+04	÷.1395+03	7735+03	1-5.5	4544+03	×1910+64	3759+04	4.1365+05	.1229+05

## TABLE 8. BIS CYCLIC PITCH TRANSFER COEFFICIENTS FOR # HINGELESS BLADE

### (H) MP = 0.3 FP = 0.0025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)++2 (FOR MU = 0.7,1.0,1.4)

			••							
N.C OR S		AUVANCE RATIO: MU = 0.25			N.C OR		ADVANCE R	9.0 ± UM .017A		
		(0.0)R						(0.0)R		
Ð	1997+05				9	4168+05				
	3149+05	•3495+83 -•2595+03	±.1581+0Z	.5992+01		6476+05	4180+03	1277+05	5570+04	5149+04
1 <del>-</del> 5,5	1190+04	982+02 1105+83	.6268+81	.1013+01	1-5.5	5132+04	5149+04	.3214+03	·8472+83	.3488+04
		(0.147R						(0.147R		
0 1-5,C	2958+04 4405+04	-,1179+02 ,1973-80	.7234-80	.5246+01	8 1÷5,€	6637+04				
1-5/5	5064+03	1179+02 -1973-80 -7316+021368+02	.2355+81	.3401+01		1041+05 2494+04	3225+83	1187+64 7595+03	3153+83	.4890+03
1-5/5		10.325}R	.2353+81	.3401+01	1-5,5	2494+04	-3840+03	7595+03 (0.325†R	.3535+03	4304+03
0	2354+05	10.325/R			8	•1457+04		1013237K		
1-5,C	.9754+02	1799+03 -7719+62	.1018+02	.8226+01	1-5.C	2080+04	4-1067+84	-2983+64	.1626+84	.2346+04
1-5.5	7517+03	·1767+03 ·2881+02	.5039+01	.6411+01		3664+04	12942+84	8474+03	8499+02	1648+04
	•	(0.557R		•				(0.557R		
0	.3943+03				0	.2367+04				
1-5,(	.6944+03	3417+03 .6441+0R	.2326+02	.2495+01	1-5.C	.3626+04	<b>-,</b> 2791+84	·5478+64	·2292+04	5246+02
1-5.5	7205+03	·1151+031182+03	.1118+02	.3369+01	1-5.5	~.3953+04	-3347+64	-2409+84	1188+04	.9231+03
	د7091+03	(0.757R			Ð	.1398+04		(0.757R		
1-5,C	.6849+03	3530+03 .1275+02	.2658+62	±.5565+01	1-5,C	+2289+04	3213+04	.5115+04	+1730+04	2692+04
1-5.5	3225+03	1916+02 .1620+03	£1276+02	1996+01		2317+04	1969+04	·4673+04	-61929+84	.2647+04
- 0.0	10220.00	(0.851R	*12.0.02	*********	. 5.0			(0.85)R	12727104	.2041104
U	.49∠8+03				0	•6575+03				
1-5,C	.4126+03	<187+032312+01	<b>1695+02</b>	4985+01	1-5.C	·1121+04	2000+04	.2999+04	•9368+83	2076+04
1-5,5	1203+03	3798+02 .1079+03	.8138+01	2271+01	1-5.5	1104+04	9375+03	.3197+04	1Z86+04	.1959+04
N.E OH		AJVANCE RATIO: MU = 0.4			N.C OK		ADVANCE F	RATIO, MU = 1.0		
		40.010				-				
	3014+05	(0.0)R			0	5811+05		(0.0)R		
	4148+05	·1255+04 -·1562+04	2780+03	6476+02		9531+05	7717+04	3114+05	÷.·1116+05	-,1896+04
	4725+04	7578+037888+03	7084+02	1978+03		7693+04	1249+05	-8740+04	•4689+04	.8419+04
- 5.5	****	(0.147R	********	-11710.00	1-3/3	-11095404	-11247103	(0.147R	*******	.0477704
0	4366+04	14-2			0	1072+05		10121711		
1-5.C	5553+04	5383+022290+02	4672+02	.7628+01	1-5,C	1893+05	2301+64	4879+04	3401+83	1315+03
1-5,5	1436+04	•<019+03 <b>-</b> •1355+ <del>0</del> 3	5770+01	.2354+02	1-5,5	4270+04	.3077+83	2989+03	.1259+04	1477+04
	_	(0.325)R						(0.325)R		
. 6	1507+03				0	•4454+04				
1-5,C 1-5,S	.7364+03	0758+03 .4196+03 .0248+03 .1105+03	3349+02	.3176+02	1-5.C	.4130+04	1185+84	.6631+64	.4005+04	7315+03
1-212	1705+04	•0248+03 •1105+83 (0•55)R	•1978+02	.8655+02	1-5.5	5328+04	*o582+04	4127+84	8799+03	4988+04
6	.7427+03	(0.55)K			0	.6052+04		(0.557R		
1-5+C	.1711+04	1271+04 .3519+03	,2169+83	.1296+02	1-5+€	.6002+04	÷+4718+63	·1486+05	-2276+04	.1115+04
1-5.5	1565+04	·+124+03 ·7092+03	5787+02	1002+02	1-5,5	3950+04	+6501+04	1971+84	5370+04	.2178+04
		(0.757R			- 0.0	10,01.04		(0.75)R	*********	*******
U	.1077+04				9	.2950+04				
1-5,C	•15v9+04	1306+04 -7015+02	.3197+03	1692+02	1-5.C	.2290+04	·2414+03	<ul><li>1425+05</li></ul>	÷.8268+03	.8578+03
1-5.5	6720+03	0380+02 -1045+04	.7240+02	1222+03	1-5.5	8256-^3	· <b>2767+0</b> 4	·1317+04	6762+04	.8093+64
0	700000	(0.851R						10.857R		
1-5.C	.7204+03 .8767+03	0078+031224+02	.2161+03	1403.00		1203+04				
	2354+03	1322+03 -70bb+63	.4723+02	1623+0£ 9686+02	1-5.C	.7063+03 1444+01	+2483+03	·8217+04	9693+03	.4607+93
2 3/3	-12334103	1322103 17000103	*********	-,9003402	1-5/5	1444401	-1032+84	.1284+04	4166+0 <b>4</b>	.5651+84
N/C OR	S	AUVANCE RATIO: MU = 0.5			N+C OK	S	A.,VANCE	RATIO, MU = 1.4		
	-							MILE - 10 - 114		
		(0.0)R						(0.0)R		
. 0	3599+05	)			θ	1012+06				
	4909+05 5795+04	-2032+043547+04 2157+041222+04	8756+03 5248+03	8871+03 6311+03		1192+06	1068+05	2716+05	2195+04	.1030+05
1-212	5/93+04	2157+041222+04 (U-14)R	5248+03	6311+03	1-5,5	<b></b> 35∠8+05	1653+05		ъ7619+0 <b>4</b>	1921+04
3	5043+04	N. P. I. O.			n	- 0507.00		(0.147R		
	6470+04	5518+021007+03	1115+03	.1013+03		2503+05 2592+05	-+4300+84	7497+04	-1616+04	6839+03
	1901+04	·2888+033352+03	.4536+02	.5670+02		1514+05	-14300+04 -1777+03		•1010+04 •3103+64	
<del>-</del>		(0.325)R	· · · · · -		1-3/3	. 131773	12777703	(0.325)R	*3103164	-, £167+04
υ	.1740+03				0	.4761+04				
1-5.C	.1200+04	1056+04 .8939+03	·1409+03	.3616+03	1-5.C	.1250+05	-+2518+04	.2332+04	.1444+04	5736+04
1-5,5	2440+04	·1260+04 ·3475+02	.2141+03	.2512+03	1-5.5	1063+05	·7839+84	1235+05	1053+04	8881+03
O	.1150+04	(0.557R						(0.557R		
1 <del>-</del> 5+C	.1150+04 ,2490+04	2139+04 .967#+03	.5622+03	4060+02	Ü	.8231+04				
1-516	2455+04	2139+04 -9678+03 -1078+04 -1471+04	.3814+02	*U60+02 -4121+00	1-5.C	.1398+05	4227+03		8355+04	÷.8355+03
1-313	+07554	1078+04 1471+04 (0.757R	4 3014402	*4151-00	1-5,5	4530+04	·1836+ <b>0</b> 4	1529+05	÷.1114+05	.7293+03
Ω	.1303+04	101/3/1			0	306040-		(0.75)R		
1-5,0	.2063+04	<295+04 ·5111+03	.7622+03	-,5329+03	1-5.0	.3049+04 .3522+04	. 1130+40	120115	1 1110165	4060 LA
1-5.5	1255+04	-2759+63 -2404+04	1974+03	3060+03	1-5.5	.1537+04	•1139+04 4760+64	•1201+05 ••8722+04	1238+05 1361+05	.4088+ <b>9</b> 4 .163 <b>5</b> +04
		(0.857R			4-313	. 255/704	/60704	(0.857R		*********
Ü	.8230+03				0	.95≥4+03				
1-5.0	1173+04	1438+04 -2238+03	-5064+03	4231+03	1-5.C	.4801+03	¥o589+83	•6936+84	-47627+04	.3022+04
1-5,5	5370+03	·1229+02 ·1656+04	÷.1671+03	-,2476+03	1-5.5	.1692+04	3641+84	4047+84	-8108+84	1059+04

## TABLE 8. BIS CYCLIC PITCH TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

(1) MP = 8.5 FP = 0.01 (FOR MU = 8.25/8.4/0.5) FP = 0.01ut7(14Mitma2 (FOR MU = 8.7/1.6/1.4)

			FP = 0.0		(POR MU = 6.4					
			FP = 0.0	10447(1+MU1**2	(FOR MU = 6.		ADVANCE D	RATIO: MU = 0.7		
N.C OR S	:	ADVANCE RATIO, NU = 0.25				-	ADVANCE I	****		
		(0.0)R				- 04/-0+0=		(0.0)R		
	-,1138+05 -,1781+05	1592+031413+03	4.1558+01	.4511+04	8 1=5.0	2682+05 4202+05	7672+84	7936+04	.3171+03	.9197+03
	1065+03	1265+03 -1226+03	.3974+02	.9368+01		7258+04	2468+04	·8917+04	.5708+04	1755+04
		(0.147R	********	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(9.147R		
1∸5•C	4329+04 6702+04	<b>4.6998+02</b> 2728+62	.4782-01	.3143+01	145.6	1061+05 1668+05	2983+84	2195+04	2194+82	.1163+03
1-5,5	4010+93	+.6998+022728+02 11291+03 -2611+02	19571+81	.2265+01	1-5,5	4735+04	1956+04	.1962+04	.1418+04	.1301+03
2 0.0	***************************************	(0.325)R	,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(0.325)R		*****
	1113+04		****		9 1-5,C	1804+04 3406+04	7715+83	•1963+04	4318+03	4844+03
	1675+04 7976+93	-%6877+82 .5026+82 .1893+832502+82	.3535+81 -9551+01	.3309+01 .7£12-00		4671+04	·2194+ <b>8</b> 4	2738+04	1919+84	8884+03
2 0,0	,	(0.557R	***************************************					(0.551R		
. • .	.7286+02		-8	****	0 1-5•C	•1158+04 •1149+04	8736+83	.4124+04	8333+03	6402+03
	6940+02 8260+03	-41418+03	49580+81 4.1899+05	.2325+01 6364-98	1-5,5	4457+04	61783+84	3766+04	3911+84	5820+03
- 0,5		(4.757R	,,,,,,,,	-,0000				(0.751R		•
	.3100+03		49558+81	4814.00	0 1∸5•C	.1030+04 .1173+04	9638+83	-3037+04	÷.6673+03	-,3659+03
1-5.C 1-5.5	.2101+03 4312+03	1317+03 .5950+02 .9437+02 .1786+01	~41393+82	.6516400 1022+01	1-5,5	2475+04	•7374+03	2017+04	÷.2950+04	.3363+82
2 0.0		(0.857R	120,010	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(0.857R		
	1899+03	7244+82 .2991+82		.1604408	0 1∸5•C	•5138+03 •5957+03	>537+83	•1538+04	3486+03	1684+03
1-5.C	.1322+03 1917+03	7244+82	.5280+01 711&+^1	.1604-00 6425-88	1-5,6	1142+04	*2870+83	8949+03	+.1508+64	1664+03
1-3-3	-11717703		-4/224	-,0015					************	.,,,,,,,,
NIC OR S	•	ADVANCE RATIO, MU ± 8.4			N.E OR	S	ADVANCE F	RATIO, MU = 1.0		
	•	(0.0)R				-		(0.0)R		
•	1764+05	10007K				3994+05				
	2387+05	7999+831179+84	-41703+03	-,2201+02		5796+05	1194+05	6496+04	•9678+04 •1987+04	-,1206+83 -,3600+04
145.5	3246+04	.6750+02 .5002+03	43 <sup>4</sup> 64+63	.4757+02	1-5,5	1314+05	L4108+84	-2086+05 (9.14)R	.1987+04	~.3600+44
.0	6718+04	(00247)			•	1682+05				
	8754+04	-43839+032508+03	±45997+02	1267+01	1-5.€	2581+05	5169+84	2497+84	.2485+04	3486+03
125.5	2003+04	-2895+03 -6507+02 10-3257R	.6576+02	.1246+02	1-5,5	8334+04	•4217+64	•5375+64 {0•325}R	.8720+63	1163+94
G	1605+04				•	1941+04				
1-5.C	1709+04	3603+03 .3504+03	12774+02	.1034+02		5997+04	1305+84	4906+83	4424+84	3610+03
1-5.5	20u2+ <del>94</del>	•5572+031541+03 {9•557R	1 <b>Z9</b> 0+ <b>0</b> 3	-,1841+02	1-5,5	6533+04	+5223+04	6677+04 (9-557R	1745+83	.1216+04
•	.2317+03	(0.55/K			.0	•3316+04		(41337)		
125.C	.5621+03	5801+03 -5867+03	.1379+83	.5187+01	1+5.C	-1078+04	8031+83	-2112+04	95 <del>98+</del> 04	3674+03
1-5,5	1766+04	•5999+032866+0£ (9.757R	2219+03	1,5318+02	1-5.5	4841+04	+4167+04	1075+85 (9-757R	֥1304+ <b>04</b>	.3324+04
•	.5270+03				•	-2263+04				
1-5.C	.6906+03	4884+03 -3995+03	.1398+03	-,2417+01	1-5,€	-1096+04	8974+03		4.7389+04	1.6253+02
1-5.5	8625+03	\$2186+83 .1048+83 (0.857R	1565+63	4917+02	1-5,5	2184+04	.1640+84	6460+ <b>8</b> 4 (9-857R	-+1235+04	.2747+84
3	.3110+03				.8	.1051+04				
1-5.C	.3748+03	-+2621+03 .1983+03	.7584+82	±.2320+0£	1-5.€	.5039+03	5215+03		3775+04	2015-01
	3725+03	+8581+02 .7565+82	8014+02	-,2689+02	1-5.5	9170+03	•6188+83		<del>6648+8</del> 3	.1431+84
N.E OR	5	ADVANCE RATIO, MU = 0.5			N.E OR	5	ADVANCE I	RATIO: MU ± 1.4		
	•	(a.0)R				-		(0.0)R		
	2199+05	***************************************			.0	6521+05				
	2932+05		4.4671+03	6944482 .2£35+83	1-5,€ 1-5,5	7462+05 3701+ <del>0</del> 5	-42396+65	•5522+63 •2473+85	9686+84	1059+05
1+5,5	5225+04	-61874+83 •1398+84 (4-147R	.100040-	,2135743	1-5/5	3/01+95	4159+04	(8.147R	<b>-</b> ∙2588+95	1138+05
	8155+04				•	3014+05				
	1059+05	-6353+63 -6353+63 -6353+63	41589+83 42156+83	4525+8£ .1576+82		3526+85 2339+85	->1193+05 >4373+03	3179+04	.2444+84 6973+84	3265+04
145,5	3094+04	64195+83 .165 <b>3+8</b> 3 (0.325FR	*2130143	*TAL SARE	1-3/3	-12337705	143/3403	.5716+84 {9.325}R	~.69/3184	3431+64
0	1726+04			4		4434+04				
1-5,C 1-5,5	1748+04 2979+04	5673+83 .7989+83 .1014+844904+83	.7335+02 3500+03	.2469+82 898403	1-5.C 1-5.S	-•7091+84 -•1517+05	-+3787+64 +3927+64		4,5603+04 49618+04	.3489+84 .3844+84
7-212	-127/7444	(0.557)	-13388483	-, 5075753	1-3/3	-11011403	1072/104	(0.557R	********	
	4927+03					.5422+04				
1-5.6 1-5.5	.1082+94 2740+84	9121+03 .1435+84 .9804+032199+03	43269+83 447184+83	4,2003+02 -,1292+05	1-8,6 1-5,5	•3181+04 •8549+94	1081+04 - 2876+04		1199+85 .1592+85	.7068+84
1-212	-12/40794	(9804+032299+03 (0.757R		-,12,42443	7-312		*=8/8784	1913+89 (6.757R	*1592+83	. 7326184
•	.7174+03				. •	-3615+04	_			
1-5,C 1-5,S	•1070+04 -•1392+04	-+8015+03 +1023+04 +4457+03 +1650+03	.3219+03 ~45610+03	3417+02 4429+02	1±5,€ 1=5,5	.2041+04 3012+04	-67573+03		9038+84 .9647+85	.4830+04
7-212	1345404	(0.757R	~43010493	-,0047172	7-212	3012744	44393+83	8284+04 (6.857R	*****	. 5056+04
	.4039+03				.0	.1633+04				
125.6	.5628+03	*4356+03 .5664+03	+1765+63 -42 <b>5</b> 34+63	-, 2215+42 -, 2294+82	145,0	-8326+03 1109+04	-44108+83		-44560+04	· #356+04.
1-5,5	6201+03	+1828+03 +1415+03	-44734783	-,2077772	148,5	1109444	-+3337+02	3701+64	644 <del>95+84</del>	<b>.2</b> 431+44.

## TABLE 9. PRECONING THANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (A) MP = 0.1 FP = 0.001 (FOR MU = 0.25:0.4:0.5) FP = 0.000447(1+MU)+\*2 (FOR MU = 0.7:1.0:1.4)

N.C OR S	ADVANCE RATIO, NU # 0.25		N.C OR S		ADVANCE RA	TIO, KU \$ 0.7		
	(C.O)R					0.01R		
03401+05				.3066+05				
1-5.07564+03	9957-021161+63742 2049+031360+03893		1-5,C -		2181+03	.4254+01	4.4858+02	.9514+02
1-5.5 .3057+02	2049+031360+03 *.893	3+02 9442+05	,-715	-1820+03 -	2945+03	1526+03	ª.9047+02	1193+03
0 -,1477+04	10114111		0 -	.2003+04	•	012418		
1-5,03706+02	6656+012190+01214		1-5.C -		·•9775÷01	2706+01	.9945-00	-,2120+02
1-5.51115+01	1140+027651+01571	6+01 <b>448</b> 5=30	1-5.5	.1061÷02 -	1975+02	1046+02	<b>*.6191+01</b>	.3657+01
0 .8707+02	(0.325)R		0	.5027+02	,	0.325)R		
1-5.C4469+01	3272+01 .9633+01 .396	5+01 .4815+01			.1035+02	1117+02	.4357+01	4912+02
1-5.59470+01	5316+012357+81 4.266	4+01 .5455+01		.7884+01	.8223+01	2676+01	+.3339-00	.1952+02
0 .6865+02	(0.55)R		O	.6785+02	(	0.55)R		
0 .6865+02 1-5,C2784+01	6719+01 .1560+u2 .596	3+01 .3157+01			5696+01	~.4261+02	<b>4.2123+02</b>	4027+01
1-5.51167+02		8-004834-00	1-5.5 -	.5786+01	-2860+02	1355+02	1678+02	1582+02
	(0.75)R		0		(	10.75)R		
0 .1435+03 1~5.C3988+01	1791+02 .1143+02 .279	0+014459+01	1-5,0 -	.1417+03	4154+02	8036+02	4.5491+02	<b>4977.00</b>
1-5.5 .4572+01		3+019210+01		.1850+02	.3277+02	2594+02	*.4802+02	.6773+02 7245+02
	(0.85)R	***************************************				(0.65)R		********
0 .1354+03			0	1266+03	****			
1-5.C3905+01 1-5.S .9939+01		5-005807+01 5+018749+01		.9043+01 - .2082+02	3866+02 .2134+02	6452+02 2075+02	*.4589+02 *.4178+02	.6395+02
1-212 19934401	~,5191-0H ,3662-0H ,35	3401	1 3/3	12002+02	12134+02	2075402	41/8402	6422+02
N.C OR S	ADVANCE RATIO, MU = G.4		N,C OR S		ADVANCE RA	ATIO, MU = 1.0		
*								
03401+05	(0.0)R		0 -	.2680+05	•	(0.0)R		
1-5,05592+03	9433+021125+03628	7+026594+02	1-5,C -		9493+02	.1633+02	-,1691+02	5753+02
1-5.5 .1447+03	1567+031258+03 4.79e				1078+03	1674+03	3952+02	2170+03
	(0.14)R		_		(	(0.14)R		1227513
01477+84 1-5.C2863+02	6618+012013+01220	5+015471-00	0 -	·.2656+04 ·.2070+02 -	3127.01	3043404		
1-5.5 .4319+01	9965+016787+0149				3127+01 2342+02	.3263+01 9618+01	.2518+01 7184+01	.5273+01 .2130+02
	(0.325)R					(0.325)R	*********	12130702
0 .6747+02				-2903+02	_			
1-5:C3298+0 1-5:S8671+01	3028+01 .1014+02 .309 5447+017594-00164	57+01 .5830+01 58+01 .5205+01		.6744+01 .6198+01	•1346+02 ••7624+01	3131+01 .1554+02	.3804+01	.1923+02
1-5.58671+01	(0.55)R	13203701	1-3/3	10170401		10.551R	2.4602+01	.7284+02
0 .6909+02			0	5393+02				
1-5.C .1865+01	5327+01 .1682+02 .69	9+01 .3807+01 2+01 .2734-0		.2328+02	-9853~00	3803+02	-,2231+02	1470+02
1-5,51173+02	3842+01 .2257+01 .18 (0.75)R	2734-0	1-5.5 -	.3621+01	.2828+02	.3047+02 (0.75)R	±.2030+01	2135+02
0 .1440+03	10173711		0	.1354+03	'	10.131K		
1-5.C -,1256+01		27+015743+01	1-5.C -	.2297+01 •	2541+02	7289+02	-,7603+02	6497+02
1-5.5 .1520+01	8048-00 .2532+01 .52 (0.85)R	3+016642+01	1-5.5	.1260+02	.2876÷02	.4548+02	+.3525+01	1478+03
0 .1359+03	(U.05/K		0	.1168+03	,	(0.85)R		
1-5.03313+01		+8+017405+01			2305+02	5501+02	<b>6295+02</b>	5394+02
1-5.5 .6740+01	.1443-00 .1430+01 .43	51+016460+01	1-5+5	.1275+02	·1489÷02	.3351+02	2.3200+01	1236+03
N.C OR S	ADVANCE RATIO, MU = 0.5		N+C OR S		AUVANCE R	ATIO: NU = 1.4		
						M120. NO 4 214		
	(0.0)R		0 .	0.700.00		(0.0)R		
03394+05 1-5.C5601+03	0259+029247+0228	13+024395+02		2309+05 1166+04	1771+413	4787+03	.3577+01	1227+03
1-5,5 .1778+03		72+021109+02			2480+02	4653+03	1811+03	5266+01
	(0.14)R					(0.14)R		10200.01
01499+04			0 -	3360+04	1057.05			
1-5:52822+02	u299+012735+0158 d409+015217+0156	54+012844+01 89-008494+01	1-5/5		3057+U2 4771+O2	-,2258+02 -,4925+02	7127-00 2202+02	.1160+02 2204+02
1-3/3 13/00/01	(0.325)R	-,8434702				(0.325)R		2204702
0 .7708+02			. 0 -	1524+03				
1-5:06558+01		57+011271+01 79+011479+02			5887+01 4811+02	•9805+02	8271+01	.4354+02
1-5,58132+01	.4208+015548+01 .41 (0.55)R	17TUL =.14/9+UZ	1-212	***************************************		.6198+02 (0.55)R	.1414+02	3866+02
0 .1053+03			0	·5501+02				
1-5,C6862+01		03+01 .1200+01	1-5.C		1986+01	.1358+03	2003+01	2357+02
1-5.53402+01	.7321+011842+0299 (0.75)R	89+013897+01	1-5,5	1450+02	•2263+02	•1145+03 (G•75)R	.4421+02	.3081+02
0 .1143+03			0	·1227+03		10.101K		
1-5.C3223+01		06+02 .4790+01	1-5.C	.3494+02	1069+02	+1396+03	.2467+02	8619+02
1-5/S .6506+01	.8692+013012+0228	64+02 .1696+02	1-5.5	.1266+02	·1846+02	·8863+02	.6142+02	.1236+03
0 .7862+02	(0.85)R		0	•9633+02		(0.85)R		
1-5,C1073+01	2407+02 .8477+01 .17	98+02 .4372+01			9426+u.	.8946+02	.2199+02	~.6427+02
1-5/5 .7525+01		27+02 .1803+02			. 3213+01	•4693+02	4152+02	9609+02
		OC 1 TETED MALUES OF 180.00		TRANSCED CAS-	FICICATO			

## TABLE 9. PRECUNING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

## 

		FF = 0.	00112(1+MU)**2	(FUR MU = 017	11.011.41				
NIC OK S	AUVANCE RATIO.	MU = 0.25		N.C OK	S	AUVANCE R	ATIO, MU = 0.7		
	.u.0)R				-		(0.D)R		
D2310+				0	2051+05				
1-5,0 -,4728+	03 1089+03	1565+012770+02	2324+02		6961+03	-+<583+03	1959+03	3396+02	5676+02
1-5/5 .1431+	031462+03	7264+025093+02	3762+02	1-5.5	.1503+03	7289+02	4071+03	1516+03	+.6219+02
	(0.14)	R					(0.14)R		
∂3317+	04			0	3715+04				
1-5.07214+		4953+015713+01	6375+01		13ub+03	3671+02	2131+02	8523+01	5131+01
1-5/5 -1740+		1261+028627+01	6551+01	1-5,5	·20u9+02	-,2566+02	4765+02	2353+02	1642+02
	(0.325	)R					(0.325)R		
21711+		1273+024398+01	5976+01	0	3059+03 15c0+0c	•1950+02	.3083+02	6200+01	.5216+01
1-5.01226+		6549+014056+01	3110+01		1232+02	2443+02	.5083+02 .6542+02	.1273+02	6521+01
1-5/54802+	(0.55)		-,3110.01	1-212	1232+02		(0.55)R	*12/3*02	0521101
0 .8107+		n.		U	.5477+02		10.5578		
1-5+04529+		2048+025211+01	2277+01	1-5,C	.1+02+02	+4724+02	.4193+02	7034+01	1197+02
1-5.52723+		1010+026161+01	3654+01	1-5.5	1059+02	5509+01	•1182+03	.3658+02	.1439+02
	(0.75)	R					(0.75)R		
3 .7609+				Û	.5004+02				
1-0.6 .1026+		1910+023769+01	.3049+01	1-5.C	.2501+02	.1702+02	+2885+02	-,4901+01	2526+02
1-5.5 .28084		9921+016051+01	2835+01	1-5,5	6503-00	.1171+02	.1069+03	.4071+02	.2836+02
	(0.85)	R		0	3434.03		(0.85)R		
.0 .41904		1144+022052+01	.2906+01	1-5,0	.2826+02 .1749+02	· d342+01	•1495+02	2574+01	1748+02
1-5,0 .21154 1-5,5 .2d274		6063:013699+01	1586+01	1-5,5	.1369+01	1053+02	.6201+02	.2508+02	.1943+02
1-5,5 .2827	01 .4//3+01	3003.01		1-31.1	11507701	11000.02	10202.02	12555.52	
N.C OR S	AUVANCE RATIO	un = 0.4		N+C OH	S	AUVANCE R	ATIO: MU = 1.0		
	ADVANCE NATION								
	(U.0)R						(0.0)R		
023094	V5				1775+05				
1-5,03597	031042+03 .	9750-00 -,1969+02	1516+02		7953+03	1995+03	4742+03	7680+02	5729+02
1-5.5 .1575	031155+03	6429-174274+02	3114+02	1-5.5	.1804+03	•5278+02	2559+03	1357+03	4852+02
	(0.14)	P					(0.14)F		
033164	04	4410+014998+01	5940+01	0	4135+04	1001100	5789+02	1242+02	4925+01
1-5.05558		4410+01 ~.4998+01 1122+02 ~.7540+01	5687+01	1-5,0	1993+03 .3723+02	3921+02 9803+01	4152+02	2454+02	1782+02
1-5,5 .1989	20+5833+02 50 (0.325		363/401	1-010	.3723+02	4803+01	(0.325)R	-,2454402	1/62+02
017044		,,,,		2	5177+03		(0.323/1		
1-5:01056		1245+05242+01	7152+01		4821+02	.1140+02	.1186+03	,1410+02	.1256+02
1-5,541324		(208+014354+01	3332+01		5254+01	4119+02	.3868+02	.17f +02	5569+01.
1 0/3 1/1202	(0.55)						(0.55)R		
0 .8290	02			0	.2027+02				
1-5.03532	011928+01	2071+02 -,5943+01	2187+01		5011+01	+2130+02	.1851+03	.2994+02	2581-00
1-5,53030		1011+027122+01	4383+01	1-5.5	1047+02	<b></b> ∠383+02	•6629+02	.4075+02	.2820+02
	(0.75)	R					(0.75)R		
0 .7756	02		.4694+01	. 0	.4967+02		44.0.03		
1-5.0 .2563		.1977+923916+01 .1024+027210+01	3713+01		.1745+02	•1451+02 •6247+01	•1410+03 •5180+02	.2762+02 .3825+02	1363+02 .4456+02
1-5.5 .1659	01 •0189+01		3/13+01	1-5,5	5280+01		(0.85)R	.3825+02	2049044
0 .4240		· K		U	.2536+02		10.0514		
1-5.C .2698	012687+01	1195+022010+01	.4220+01	1-5,C	.1333+02	+7336+01	.7535+02	.1575+02	1006+02
1-5/5 .1901		6315+014447+01	2152+01		2201+01	+8338+01	.2792+02	.2191+02	.2856+02
1-3/3 11901				. 0.5			12.72.02		******
N.C OR S	AUVANCE RATIO	MI = 0.5		N.C DR	S	A. WANCE	RATIO, MU = 1.4		
						MOVANCE	MATTO MO = 1.4		
	(0.0)	R					(0.0)R		
v2308				Ü	1507+05				
1-5.C4294		.3428+02 .7309+01	.3485+01	1-5.C	4537+03	1156+03	2718+03	7028+02	4105+02
1-5,5 .1331		-,6868+02	4524+02	1-5.5	.2717+03	.1522+03		8483+02	4112+02
	(8.14)	)R					(0.14)R		
03314 1-5:C6468	.00	20/2/04		0	4463+04				
1-5,5 .1525	·021931+02	.3267+015216+01 .1749+029411+01	7369+01	1-5,0		3594+02		1584+02	9604+01
- 0.3 (1353	(0,32		6093+01	1-5,S	•79ua+02	· #528+01		2128+02	1608+02
01708				0	8028+03		(0.325)R		
1-5+C7667	01 .0864+01	.2232+021452+02	1521+02	1-5,C		1310+02	•6654+02	1007.00	
1-5,56163	01 3724+01	.15U5+021027+06	7389-00	1-5.5	•9964+01	5926+02		.1247+02	.6247+01
	(0.55)		•			,	(0.55)6	.3780+01	3912+01
0 •7868				0	4193+02				
1-5.C .6584		.3805+021676+02	7068+01		4721+02	1677+02	.7647+02	.3182+02	.1678+02
1-5.52421		.2275+021482+01	4873+01	1-5.5	8066+01	3102+02	5870-02	.7898+01	.1811+02
0 .7144	(0.75)	J K		_			(0.75)R		
0 .7144 1-5.C .1526		7640403 - 1045:00	4363.00	1-5.6	-3966+02				
1-5/6 .1520		.3664+021065+02 .1818+023142+01	.6353+01 7785+01	1-5,C 1-5,S	.1716-00 8590+01	1571+02	.3538+02	.2910+02	.154/+02
- 0,3 14020	10.85		//85+01	1-3/5	0370+01	.1428+02	5218+02	.4071+01	.2574+02
0 .3825	02			0	-2346+02		(0.85)R		
1-5,C .1098	02 .2637+01	.2219+025334+01	.6517+01	1-5.C	.6333+01	4905+01	•1432+02	.1619+02	.8617+01
1-5.5 .4393		.1023+022264+01	5352+01		4793+01	1452+02	2889+02	.1735+01	.1572+02

## TABLE 9. PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### FP = 0.01 (C) MP = 0.1 FP = 0.01 (FOR MU = 0.25.0.4.0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

NIC OR S	ADVANCE RATIO, MU = 0.25		N.C OR S	AUVANCE RATIO, MU = 0.7	
	(0.0)R			(0.0)R	
01202+05 1-5,C1630+02		5814+011063+02	01060+05		
1-5,C1630+02 1-5,5 .2756+03	0585+025624+02 1580+023957+02	5814+011063+02 2555+021607+02	1-5.C .7125+02 1-5.S .3952+03	4555+026009+02 0092+023837+02	7839+023656+02 5394+023009+02
	(0.14)R		1-3/3 :3932+03	(0.14)R	5394+023009+02
04516+04 1-5.C1348+02	2383+021724+02	5290+015595+01	04469+04		
1-5,5 .1062+03	1022+021372+02	9110÷016120+01	1-5.C .4694+01	2060+021986+02	2292+021322+02
	(0.325)R		1-5.5 .1715+03	•1345+91 -•1675+02 (0.325)R	1968+021128+02
01161+04		-4-4	01348+04	(0.525)	
1-5,C1526+02 1-5,S .3240+02	3632+01 .4146+01 9432+015510-00	8173+014903+01 1214+011807+01	1-5.C4021+02	0510+01 .1607+01	.1478+02 .1938+01
1-3/3 13240102	(0.55)R	12147011607701	1-5.5 .5988+02	3924+026138+01 (0.55)R	.2383+013200-00
02056+03			02968+03	(0.55)K	
1-5,08272+01	.3707+01 .1200+02	1030+025265+01	1-5.03536+02	3352+01 .1326+01	.3100+02 .1056+02
1-5.5 .1082+02	+687+01 .4809+01 (0.75)R	.1376+017408-00	1-5.5 .1896+02	3298+022461+01	.1485+02 .4024+01
U2996+02	(0.73)K		05895+02	(0.75)R	
1-5.6 .2375-00	.3754÷01 .8708+01	6925+013407+01	1-5,C9644+01	8278-003187+01	.2168+02 .8938+01
1-5.5 .3929+01	.3679-00 .4220+01 (0.85)R	.1236+014244-00	1-5.5 .4865+01	~.8128+019830-00	.1265+02 .3158+01
08244+01	(0.85)K		In	(0.85)R	
1-5.C .1173+01	.2027+01 .4387+01	3451+011682+01	1-5.C1888+02 1-5.C2185+01	2207-09·2378+01	.1077+02 .4696+01
1-5.5 .1641+01	.0168-00 .2238+01	.6441-002154-00	1-5.5 .1571+01	1465+014205-00	.6652+01 .1601+01
N,C OR S	ADVANCE RATIO, MU = 0.4				
TTTTTTT	ADVANCE RATIO, MO - 0.4		N.C OR S	ADVANCE RATIO, MU = 1.0	
	(0.0)¤			(0.0)R	
01202+05			09033+04		
1-5.C .5847+U1 1-5.5 .2716+03	5390+024777+02 .8561+014181+02	8453+011056+02 2107+021360+02	1-5.C .1737+03 1-5.S .5951+03	4562+021531+03	1742+033406+02
1-3/3 12/10/03	(0.14)P	-12107402 -11300402	1-3/2 +3931+03	•9263+029544+02 (0.14)R	6781+022807+02
04514+04			04319+04	10124711	
1-5.C8579+01 1-5.S .1049+03	1967+021504+02	5443+015314+01 8370+015662+01	1-5.C .3734+02	2005+024493+02	5133+021458+02
1-5/5 .1049+03	5444+011390+02 (0.325)R	8370+015662+01	1~5, 2950+03	•5157+013553+02 (0.325)R	2925+02 '1399+02
31160+04			01548+04	(0.3237K	
1-5.C2015+02	3408+01 .1951+01	6491+014292+01	1-5,05669+02	2048+01 .3063+02	.4619+021839+01
1-5.5 .3233+02	1546+02 .8297-00 (0.55)R	2805+012574+01	1-5.5 .1223+03	5666+02 .7871+01	6959-005746+01
02044+03	(U+55/K		04224+03	(0.55)R	
1-5:C1416+02	•<409+01 •6640+01	8030+014494+01	1-5,C5414+02	•0801+01 •4325+02	.9012+02 .3463+01
1-5,5 .1079+02	9946+01 .6853+01	5698-001690+01	1-5.5 .4412+02	-·4378+02 ·2724+02	-1844+021571+01
02897+02	(0.75)R		01033+03	(0.75)R	
1-5,62217+01	·2626+01 ·4192+01	5515+012907+01	1-5,C1278+02	·8188+01 ·1874+02	.6057+02 .2774+01
1-5/5 .3729+01	3607-00 .5592+01	.2578-008937-00	1-5.5 .1219+02	o630+01 .1929+02	.1675+027774-02
07713+01	(0.85)R			(0.85)R	
07713+01 1-5:C .2561-00	•1432+01 •1981+01	2774+011437+01	03576+02 1-5:C2032+01	•4331+01 •7225+01	
1-5.5 .1504+01	.1001+01 .2918+01	.2234-004147-00	1-5.5 .4068+01	•7331+01 •7225+01 •7194-00 •9492+01	.2949+02 .1382+01 .8853+01 .1247+00
N.C OR S	AUVANCE RATIO, MU = 0.5		N.C OR S	ADVANCE RATIO, MU = 1.4	10035701 1247700
	NOTATION NO - 015		4,C 3+ 3	ADVANCE RATIO, NO + 1:4	
	(0.0)R			(0.0)R	
U1201+05 1-5:C7322+01	5873+025531+02	.1250+013495+01	07399+04 1-5:0 .8069+03	•9065+02 <b>2199+</b> 03	4104+029344+01
1-5,5 .2828+03	•1736+02 -•6999+02	2037+021042+02	1-5.5 .9102+03	·1357+039349+02	.2729+03 .2343+02
	(0.14)R		1-3/3 19202103	(0.14)R	
04514+04			03990+04		
1-5,C1692+02 1-5,S .1094+03	2151+021686+02 5043+012035+02	4159+014785+01 8901+015402+01	1-5,C .3474+03 1-5,S .5067+03	•5492+02 -•5403+02 •1249+02 -•3051+02	1981+026940+01 .5941+021003+01
1-3/3 11094403	(0.325)R		1-5.5 .5067+03	•1249+02 -•3051+02 (0•325)R	.59414021003401
01160+04			01664+04		
1-5.C2788+02	3803+01 .2718+01	1116+028211+01	1-5+C +2229+02	·3669+02 ·7717+02	1395+011115+02
1-5.5 .3416+02	1943+02 -8240+01 (0.55)R	4729+014832+01	1-5/\$ +2398+03	7957+02 .2201+02 (0.55)R	1343+032698+02
02039+03			05525+03		
1-5.01802+02	·2722+01	1496+029107+01	1-5+C6190+02	•3127+02 •9359+02	.1245+022201+02
1-5,5 .1205+02	1083+02 -1996+02	3344+015738+01	1-5/5 .8933+02	6183+02 .4083+02	~.2094+034009+02
02879+02	(0.75)R		01533+03	(0.75)R	
1-5,C2687+01	.3047+01 .2716+01	1007+025307+01	1-5,C1950+02	•1905+02 •3874+02	.1139+021817+02
1-5.5 .4519+01	.1946+01 .1473+02	1692+014029+01	1-5.5 .2243+02	6611+01 .2425+02	1273+032585+02
07637+01	(0.85)R		05490+02	(0.85)R	
1-5,C .4761-00	•1675+01 •1018+01	5008+012492+01	1-5,C4376+01	·9194+01 ·1463+02	.5977+019450+01
1-5.5 .1899+01	.2695+01 .7490+01	7611-002047+01	1-5,5 .6769+01	·1224+01 ·1116+02	5959+021242+02

## PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (D) MP = 0.3 FP = 0.001 (FOR MU = 0.25.0.4.0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7.1.0.1.4)

		FP = 0.000447(1+MU)**2	(FOR MU = 0.7,1.0,1.4)		
N+C OR S	AUVANCE RATIO, MU = 0.25		N.C OR S	ADVANCE RATIO: HU = 0.7	
				(Q.0)R	
03422+05	(0.0)R		03088+05	(0.0/R	
1-5,C .1154+03	•1399+03 •5570+02 •4	140+82 .3040+02	1-5.C .3358+03		49+03
1-5.5 .2856+05	•7265+02 •9492+02 •6	228+02 .5540+02	1-5/5 .6324+03		68+03
	(0.14)R		02017+04	(0.14)R	
01467+04 1-5:C .1902+01	•1197+01 -•1350+01 -•2	044+018836-00		.1841+02 .3628+013495+0110	37+02
1-5.5 .1462+02		516+018645~00			07-01
	(0.325)R			(0.325)R	
0 -8362+02			0 •4965+02		
1-5.C7547-00 1-5.S .5628+01		861+012782+01 794+016657+01			98+02 11+02
1-5/5 .5028401	(0.55)R	794+016657+01	1-3/3 11/21+02	(0.55)R	11402
0 •6463+02	1000011		0 •6479+02		
1-5.C .9678+01		9152-00			42-00
1-5.5 .7620+01	.6486+011151+027 (0.75)R	96+013469+01	1-5,5 .2477+02	-5672+023044+023368+0217 (0.75)R	73+02
0 .1447+03	(0.75/8		0 •1462+03	1001378	
1-5.C .6937+01	1547+027729-00 .6	053+01 .1909+01	1-5.C .4228+01 -		02+02
1-5.5 .1457+01		+21+01 .4243+01	1-5+5 +6087+01		34+02
0 .1385+03	(0.85)R		0 .1327+03	(0.85)R	
1-5.C .1891+01	7861+01 .1019÷J0 .5	323+01 .9830~00		.1760+021974+029227+01 .43	10+02
1-5.51595+01		951+01 .5339+01			52+02
				COMMON BARRA MIL - 4 A	
N,C OR S	ADVANCE RATIO, MU = 0.4		N.C OR S	ADVANCE RATIO, MU = 1.0	
	(0,0)R			(0.0)R	
03441+05			02657+05		
1-5,C .1949+03		405+02 .4460+02			52+03
1-5.5 .5153+03		459+03 .1135+03	1-5:5 .4498+03 -	.4331+022893+031983+0321 (0.14)R	59+03
01496+04	(0.14)R		02632+04	(U+147K	
1-5,C .3626+01		675+01 .4946~00	1-5+C4164+02		22+02
1-5.5 .2640+02		899+011183+01	1-5:5 .3798+02 -		65+O
0 8242+02	(0.325)R		02096+02	(0.325)R	
1-5.C1064+01	3489+027101+017	212+01 -,1344+01		.2091+02 .7294+02 .4059+02 .60	71+02
1-5/5 -1137+02	•7526+01 -•1170+02 -•8	574+011061+02		.4814+02 .2099+02 .1448+02 .45	21+02
	(0.55)R			(0.55)R	
0 .6287+02 1-5,c .1448+02	5211+02 .1452+01 .6	428+01 .4671+01	0 .6083+02 1-5:C .6019+02	.1407+02 .5336+02 .9080+0114	59+02
1-5/5 -1574+02		259+024116+01			44+02
	(0.75)R		· -	(0.75)R	
0 .1492+03			3 .1226+03		
1-5.C .8032+01 1-5.5 .9936-00		005+02 .1048+02 441+02 .3129+01		.1403+02 .5033+016447+0214 .2828+02 .1120+03 .8547+0215	82+03 64+02
1-3/3 19980-00	(0.85)R	,3129+01	1-3/3 *2127+02	(0.85)R	
.0 •1442+03			0 .1025+03		
1-5.C .2158-00		707+02 .8692+01			86+03
1-5,55622+01		059+02 .3602+01	1-5,5 .2786+02	.5524+01	91+02
MrC OR F	ADVANCE RATIO: MU = 0.5		N.C OR.5	ADVANCE RATIO: MU = 1.4	
	(0.0)R		*****	(0.0)0	
03439+05			0 -,2272+05	(0.0)R	
1-5.C .2490+03		611+02 .9989+02	1-5,C .2448+03	-2690+031239+036279+0215	540+01
1-5,5 .6026+03		.517+03 .1459+03	1-5.5 .7673+03		121+02
01495+04	(0.14)R		03308+04	(0.14)R	
1-5.C .7993+01	•7984+01 -•8069-01 -•:	534+013835+01	1-5:C -:1798+02	-3702+02 -1986+02 -1740-0076	u82-01
1-5.5 .3117+02		422+012206+01		··6610+02 -·4986+01 -·7584+0161	134+01
0 .8326+02	(0.325)R		0 4,01,0-	(0.325)R	
1-5.C .3534+01	4248+021549+02:	146+021565+02	01491+03 1-5,C4362+02	·1955+02 ·4676+02 ·2009+0255	516+01
1-5.5 .1588+02	.2075+021258+02:	476+011422+02			515+02
	(0.55)R			(0.55)R	
0 .6627+02 1-5:C .1968+02	7017+021725+022	869+016510-00	0 •4898+02 1-5:C •4626+02	- 3000400	
1-5,5 .2120+02	•3272+02 -•2715+02 -•2	270+028607+01	1-5.0 .4626+02 - 1-5.52270+02		351+01 348+02
	(0.75)R			(0.75)R	- 40 T VE
0 .1540+03 1-5,C .1109+02	399f+021033+02 .:	703101 4037.00	.0 •9564+02		
1-5/5 -,4557+01		783+01 .2977+02 784+029035+01	1-5:C .9825+01		345+02
	(0.85)R		1-5.5 .2648+02	•2648+02 •6889+02 •3997+02 •47 (0.85)R	753+02
_0 •1477+03			- 0 -7406+02		
1-5:C .1471+01 1-5:S1407+02		890+01 .3029+02	1-5,01266+02		575+02
7-31311401+UZ	.2650+014490+014	049+028053+01	1-5.5 .2853+02	··2273+02 ·5335+02 ·2753+02 .3e	632+02

## TABLE 9. PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

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N+C OR S	ADVANCE RATIO, MU = 0.25		N+C OR 5	ADVANCE RATIO, MU = 0.7		
******	(0+0)R			(9+8)R		
02319+	05		J2062+05			
1-5.C .75164		.2472+02 .1510+02	1-5.C .1761+03	•1326+03 •7304+02	.5919+02 .4750+02	
1-5/5 .15434	(0.14)R	.3602+02 .2782+02	1-5.5 .2817+03	•7208+02 •6279+02	.6076+02 .2914+02	
03333+ .1-5¢C .1086+		.2890+01 .2953+01	03737+04 1-5.c .2432+02	•19 <del>9</del> 0+02 •1035+02	£077.01 7470.64	
1-5.5 .2472+		.3750+01 .2549+01	1-5\\$ .5613+02	•1990+02 •1035+02 •6892+01 •1283+02	.6037+01 .3138+01 .8794+01 .8434+01	
U1776+	(0.325)R		·	(9.325)	10,44401	
1-5.C .1593+		2271+01 .5872-00	.03106+03 1-5.C8381+01	7467+U18155+01	1092+021048+02	
1-5/5 .69874		2778+012795+01	1-5.5 .1499+02	5021+01 .3147+n1	1092+021048+02 4483+01 .3556+01	
	(0.55)R	•••••		(0+55)R	11110101	
0 .7830+ 1-5,C .3943+			0 •5981+02 1-5:C •8150+01	1007.00		
1-5/5 .57624		6049+014108+01 2733+012307+01	1-5.C .8150+01 1-5.5 .8124+01	1083+021890+02 -1940+021472+01	1667+028080+01 6978+011012+02	
	(0.75)R	- 12001112		(0.75)R	07/64011012402	
0 .77374 1 <del>-</del> 5.C .55554		7127+0:7396+01	0 .6703+0; 4=5:C .2479+02	6550+011944+02	4 Tab. 4	
1-5/5 .3073		A473-01 2080-00	1-5.5 .1486+01	6550+011944+02 -3691+024579+01	1324+025123-00 5047+011909+02	
	'0.85)R			(0.85)R	-1: 41401 -: 148402	
0 .43134			.0 .3586+02			
1-5.0 .3736- 1-5.5 .1388-		4577+015176+01 1452-00 .2871-0(	1-5.C .1781+02 1-5.S1941-00	3141+011173+02 -2520+023271+01	7317+01 .1029+01	
1-3/3 11300	01 10202701 -1)341400	1492-00 .2871-00		·2520+023271+01	2671+011300+02	
N.C OR S	ADVANCE HATTO, MU = 0.4		N.C UR 3	ADVANCE RATIO, MU \$ 1.0		
023314	(0.0)R		01771+05	(0.0)R		
023314 1-5,0 .14364	03 1664+U3 7864+02	.4806+02 .3661+02	1-5.0 .7441+02	8678+011024+03	1537+023553+02	
1-5:5 .27494	03 1197+03 1293+03	.9497+02 .6470+02	1-5/5 .3124+03	·1062+033625+02	1471+021342+02	
	(0.14)R			(0.14)R		
033514 1-5/C .19524		.4665+01 .4402+01	04127+04 1-5+(1485+02	·2137+015861+01		
1-5/5 .45134		.1022+02 .6991+01	1-5/: .7051+02	•2137+015861+01 -•7896+012924+01	~-4271+01 .3041-00 #-8919+013444+01	
	(0.325)R	11022101		(0.325)R	***************************************	
.018094 1-5.C1874-			05157+03.			
1-5/5 -14894		5126+012064+01 7567+015069+01	1-5:C4782+02 1-5:S -5861-00	•9111+01 •3404+02 -•5145+0 •9079+01	.1899+01 .1408+02	
	(0.55)R	-11381101 -13009101	1-5/3 •3801-00	(0.55)R	5424+01 .1018+01	
0 .7795	0.		0 +291++02			
1-5.C .25374 1-5.S .12724		7430+013990+01	1-5.C4680+01	·9988+01 ·2882+02	.1461+02 .3146+01	
1-3/2 -12/21	02 •1215+021138+02 (3.75)8	1103+027280+01	1-5/52013+02	3652-00 .3751+01 (0.75)R	•1752+02	
0 .7937-			0 .6100+02	(0.75/R		
1-5.C .6108		5766+013792+01	1-5.C .4066+02	.5481+01 .6398+01	·1880+029792+01	
1-5.5 -6665	01 •1443+02 -•9925+01 (0•85)R	8314+015393+01	1-5.52121+02	4192+01	.200=-02 .1032+02	
0 .4480			.0 •3283+02	(0.85)R		
1-5,6 .4469		3203+012281+01	1-5.C .3083+02	·2501+01 ·2126-00	.1163+027745+01	
1-5/5 .2955	01 9318+015780+01	4552+012928+01	1-5:51243+02	.3860+023697+01	.1943+02 .6371+01	
·C OR S	ADVANCE RATIO: NU = 0.5		NJC OR 5	AUVANCE RATION HU ="1:4		
02331	(0.0)k		0 +.1503+05	(0.0)R		
1-5,C .1667		.6222+02 .5400+02	1-5+C .1240+03	.3245+022652+03	2222+027592+02	
1-5.5 .2998	03 1079+03 .1403+03	.1089+03 .7202+02	1-5,5 .4969+03	·1380+035735+02	3757+021133+0	
	(0.14)R		04449+04	(U.14)R		
03352- 1-5.C .2367-		.6125+01 .4477+01	1-5,C3524+02	·1220+022269+02	1076+021585+01	
1-5.5 -5017	02 .1812+02 .1660+02	.1135+02 .8054+01	1-5.5 +1366+03	1836+027184+01	2239+021174+02	
	(0.325)R		07932+03	(0.325)R		
01813 1-5+C .3322		7083+016772+01	1-5,C1190+03	•4903+01 •9823+02	.2U3#+01 .3478+02	
1-5.5 .1769	02 .1073+026488+01	8938+015066+01	1-5.56958+01	8073+02 .9600+01	1335+02AA86+01	
	(0.55)R			(0.55)R		
0 .7798 1-5:C .1107		1233+026903+01	.01177+02 1-5,c3394+02	4020+01 .8438+02		
1-5,5 .1297	02 .2398+026682+01	1083+027635+01	1-5/56300+02	4020401 .8438402 -32414021300402	.2726+02 .1894+02 .2726+02 .2102+02	
	(0.75)R	- <del>-</del>		).75)R	12.50.05 15105405	
0 .7982	02	1146+022855+01	0 .7364+02 1-5,0 .5939+02	- 4000101		
1-5/C .1645 1-5/S .4038		1146+022855+01 6215+015906+01	1-5/\$5878+02	8200+01 -1959+02 -1159+032749+02	.4768+026888+01 .4594+02 .3491+02	
1-313 14030	(0.85)R			(11.85)R	·4594+02 ·3491+02	
.0 .4515	+02		.0 4328+02 1-5.C 4690+02			
1-5.C .1117 1-5.S .7864		6849+019511-00 2891+013272+01	1-5,C .4690+02 1-5,S3262+02	5236+01 -2033+01 -7781+021774+02	·2977+027558+01	
1-5:5 .7864	-00 41843702 -11338-00				.2878+02 .2184+02	

## TABLE Q. PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (F) MP = 0.3 . FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

N+C OR S	ADVANCE RATIO: MU = .0.25		N.C OR S	ADVANCE RATIO: NU = 0.7	
	(0.0)R			(0.0)R	
.01200+05 1-5,C .1132+03 1-5,S .1252+03	.1190+02 .1677+02 .4344+01 .4955+02 .1059+02 .1066+02	.3392+01 .6675+01	01067+05 1-5,C .1924+03 1-5,S .2646+03	3141+028270+01 .2640+037550+02	5296+027439+01 .2331+01 .1655+02
/04511+04	(0.14)R	.66/5+01	04505+04	(0.14)R	
1-5.0 .2579+02 1-5.5 .4993+02	.5260+01 .4562+01 .1705+01 .1026+02 .4431+01 .3499+01 (0.325)R	.1415+01 .2447+01	1-5.C .1574+02 1-5.S .1164+03	3178+01 .5822+01 .5328+021204+02 (0.325)R	1147+029786-00 1863+01 .4868+01
01161+04 1-5,C2211+02 1-5,S .1737+02	.3166+012619+01 .8002-00 1105+02 .1506+012239-00	.9036-00 .2947-00	01366+04 1-5:C1002+03 1-5:S .4307+02	.1877+02 .1134+02 7353+02 .3525+02 (0+55)R	.2168+02 .5261+01 .1135+012180+01
02049+03	(0.55)R		03007+03	(0+55/K	
1-5,C2352+02 1-5,S .4817+01	.3097+015346+01 .1066+01 9374+016549-001530+01 (0.75)R	.1377+01 8364-00	1-5,C8224+02 1-5,S .3912+01	.2549+027114+01 5744+02 .5008+02 (0.75)R	.4091+02 .1024+02 .1889+023301+01
.02829+02			05539+02		
1-5.C6567+01 1-5.S2918-00	-2094+013745+01 -9469-00 7428-001356+011151+01 (0.85)R	.1202+01 8916-00	1-5.C1618+02 1-5.S9181+01	1524+021678+02 9896-00 .3024+02 (0.85)R	.3016+02 .8018+01 .2170+021391+01
07162+01			01612+02		
1-5,C1444+01 1-5,S6594-00	.1057+011872+01 .5185-00 .7148-008319-005830-00	.6531-00 4970-00	1-5,C8531-00 *-5,S6262+01	.7166+011043+02 .6499+91 .1425+02	.1532+02 .4157+01 .1233+025197-00
N.C OR S	ADVANCE RATIO, MU = 0.4		N.C OR S	ADVANCE RATIO, MU = 1.0 (0.0)R	
01206+05	(0.0)R		09260+04	(0.078	
1-5+C •1727+03	.2877+02 .3951+02 .1611+02	.1408+02	1-5.06114+02	2522+032774+03	2641+03B225+02
1-5,5 .1971+03	.1296+03 .2223+02 .2346+02 (0.14)R	.1856+02	1-5:5 .2953+03	-4607+031721+03 (0.14)R	.4271+02 .4075+01
04535+04 1-5,C .3919+02	.1311+02 .1163+02 .5386+01	4562+01	1-5,C1660+03	1005+037428+02	7763+022421+02
1-5/5 .7943+02	.2958+02 .1177+02 .8669+01 (0-325)R	.6940+01	1-5.5 .1471+03	.1074+035333+02 (0.325)R	1026+021207+02
.01172+04 1-5.C3280+02	.8862+014552+01 .5150-00	.4004-00	01578+04 1-5,C2709+03	1068+01 +6304+02	.7081+02 .1855+02
1-5.5 .2890+02	2298+02 .9252+01 .2874+01 (0.55)R	.1675+01	1-5.5 .5360+02	1282+03 .2900+02 (0.55)R	5414+022794+02
02096+03		,9012-00	04015+03 1-5:C1955+03	.3040+02 .6723+02	.1396+03 .3096+02
1-5.C3136+02 1-5.S .8666+01	.9695+011169+02 .2942-00 1855+02 .6894+01 .3496+01 (0.75)R	.7895-01	1-5:56995+01	1099+03 .4458+02 (0.75)R	5184+022638+02
02946+02		4557.04	07588+02 1-5,C5095+02	.1781+02 .1635+02	.9469+02 .1751+02
1-5,C5191+01 1-5,S2802-00	.6881+018903+01 .8310-00 .1013+01 .2812+01 .3409+01 (0.85)R	.1553+01 1591-00	1-5/52227+02	9917+01 .1999+02 (0.85)R	2092+021162+02
07449+01			02040+02 1-5,C1167+02	.7891+01 .2738+01	.4627+02 .7919+01
1-5,C .5516-00 1-5,S1050+01	.3522+014578+01 .5485-00 .3144+01 .1086+01 .1918+01	.9634-00 9775-01	1-5.51340+02	.6629+01 .7867+01	7883+014682+01
N.C OR S	ADVANCE RATIO: MU = 0.5		N+C OR S-	ADVANCE RATIO: MU. 7-1-4	
	(0.0)R			(0.0)R	
01209+05			08264+04		
1-5,C .1921+03 1-5,S .2089+03	.2796+02 .5723+02 .1228+02 .1766+03 .1273+02 .2938+02 (0.14)R	.1342+02 .2402+02	1-5.C3460+02 1-5.5 .1217+03	2577+033926+03 .7679+032519+03 (0.14)R	2190+037473+02 .1822+036452+02
04547+04			04456+04 1-5:C2431+03		7301+021662+02
1-5.C .3799+02 1-5.S .8445+02	.1310+02 .1669+02 .4762+01 .3805+021105+02 .9581+01 (0.325)R	.4086+01 .8683+01	1-5.5 .8785+02	1070+039893+02 .2403+037148+02 (0.325)R	-1/301+02 -1652+02 -3198+022853+02
01175+04			01861+04 1-5,C4213+03	44444	.6159+02 .3012+02
1-5.54707+02 1-5.5 .3008+02	.9567+018547+01 .2468+01 3550+02 .1468+02 .1652+01 (0.55)R	.7332-00 .1014+01	1-5.5 .5767+02	•1116+02 •1222+03 ••1346+03 •6475+02 (0.55)R	.6159+02 .3012+02 9668+02 .2697+01
- 02084+03- 1-5:C4169+02	.1090+022335+02 .4114+01	.3699+01	05521+03	£077.00 10(0:07	
1-5,C4169+02 1-5,S .5634+01	.1090+022355+02 .4114+01 2760+02 .1373+02 .4572+01 (0.75)R	.3699+01 2455+01	1-5,C2859+03 1-5,S4758-00	.5837+02 .1260+03 1251+03 .7444+02 (0.75)R	.1378+03 .3636+02 1250+03 .2315+02
02705+02			01119+03		
1-5/C6335+01 1-5/S4246+01	.7801+011933+02 .3677+01 -1610+01 .6696+01 .5941+01	.4706+01 2493+01	1-5,65961+02 1-5,52642+02	.3744+02 .3339+02 .4478+01 .2274+02	.9711+02 .1580+02 6440+02 .1885+02
T-312 -44540+0]	+1610+01 +8696+01 +5941+01 (0.85)R	-,2473701	4-075 -12046102	(0.85)R	
05991+01			.02977+02		-Wee-ee
1-5,C .1079+01 1-5,S3367+01	.3999+011022+02 .2148+01 .4731+01 .2876+01 .3519+01	.2767+01 1369+01	1-5.C7942+01 1-5.S1687+02	.1751+02 .7309+01 .1797+02 .6237+01	.4780+02 .6192+01 2799+02 .9620+01

## TABLE 9... PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (6)- MP = 0.5 FP = 0.001 (FOR MU = 0.25:0.4:0.5) FP = 0.000447(1+MU)\*\*2 (FOR MU = 0.7:1.0:1.4)

				0.000441(1.HQ)442	11 m/ m/ = 00	//100/104/				
N.C OR S		ADVANCE RATIO, MU = 0.251			N.C OR S	i	ADVANCE R	ATIO: MU = 0∞7		
******						•				
.0	3404+05	(0.0)R			0	3130+05		(0+0)R		
	2223+02	.5291+024893+01	4951-00	6478-00		.1749+03	•9210+03	.3000+03	.3170+03	.1791+03
1-5.5	1936+03	·1727+013541+01	4417-00	5664-00	1-5,5	.7131+03	-2698+03	•3266+03	.2391+03	.2792+03
	-	(0.14)R						(0.14)R		
. 0	··1479+04				0	2034+04	.1457+02	8431+01	-,2796+02	1551+02
1-5.C	3656+01 -8785+01	-8190-00 -6032-00	4252-01 4383-01	.1874-01 .3719-01	1-5:C 1-5:S	1198+02 .5560+02	-2084+02	.2599+02	.2731+02	.7408-00
1-5.5	.8785+01	1963+01 .1316-00 (0.325)R		.3/19-01	1-3/3	13500402	*2054402	(0.325)R		11100
0	.8552+02	1013E37R			. 0	.6460+02				
1-5.C	4721+01	5793+01 -1210+01	6417-01	.1622-01		1144+02	1234+03	5056+02	7764+02	-,3936+02
1-5.5	.1440+01	6948-00 .5332-00	2483-01	.5417-01	1-5/\$	.3007+02	.2413+02	1360+02 (0-55)R	5862+01	4477+02
_		(0+55)R			0	.6380+02		(U-55/K		
0 1-5.C	.6660+02 .2285+02	9739+01 .7004-01	.4839-01	9649-01	1-5+C	.4893+02	1496+03	1467+02	.1485+02	.2309+02
1-5.5	·4761+01	.4402+01 .1201+01	.1350-00	7867-01	1-5/5	.3825+02	.3738+02	4170+02	6971+02	3773+02
	**********	(0.75)R						(0.75)R		
0	.1394+03				. 0	.1422+03		3912+02	.1264+03	.8956+02
1-5.C	.1767+02	5709+017094-00	.4022-00	.1667-02 6651-01	1-5,C 1-5,S	-2887+02 3416+01	6101+02 1166+02	2553+01	-,7980+02	1879+02
1-5+\$	.5744+01	.9029-00 .2735+01 (0.85)R	.3818-00		1-5/3	5410401	-11100102	(0.85)R	-11700.02	
O	.1317+03	(0.031K			·0	.1319+03				
1-5.C	.7329+01	1913+015686-00	.4079-00	.6254-01	1-5.C	.3354+01	1068+02	.3912+02	.1105+03	.7483+02
1-5+5	.3962+01	-,1749+01 ,2473+01	.3425-00	1600-01	1-5+5	1755+02	2675+02	.1591+02	4930+02	.3057+02
N+C OR	_	ADVANCE RATIO, MU = 0.4			N.C OR	c	ADVANCE E	RATIO: MU = 1.0		
N/C UK	<b>&gt;</b>	ADVANCE NATION NO T UST			N/C OR	. <u>-</u>	ADVANCE N	WIIO. WO - 110		
	='	(0.0)R						(0.0)R		
.0	3398+05	1010111			2	2672+05				
1-5.C	1693+02	.1359+031235+02	.5050+01	.3298-00	1-5,0	.3176+03	·4568+03	6903+02	.8593+02 .5404+01	.7430+02 .1145+03
1-5.5	.3449+03	3195+011252+02 (0.14)R	6167+01	4063+01	1-5,5	.7983+03	1079+03	.6615+02 (0.14)R	*2404+01	.1145+03
a	1476+04	.(U.141K			.0	2643+04		(0.14)#		
1-5+C	4870+01	.2776+01 .2246+01	2475-00	.4620-00		1860-00	+3780+02	.1919+02	2712+01	3963+01
1-5.5	.1537+02	4771+01 .4621-00	.7680-0¢	.5580-00	1-5.5	.7666+02	3495+02	.1281+02	.1271+02	3076+01
		(0.325)R						(0.325)R		
0	.8732+02				. 0	1319+02		-100.01	1779+02	2407+02
1-5.C	.7802+01	1291+02 .4516+01 5521-00 .2129+01	8344-80 .1586+01	.3338-00 .1223+01	1-5,6	1572+02 2709+01	4041+02 1560+02	.3128+01 6439-00	.1502+02	2512+02
1-5.5	.1901+01	5521-00 .2129+01 (0.55)R	*1286+01	.1223401	1-212		1200402	(0.55)R	11305405	2312702
0	•6780+02	101357R			0	.5586+02		10100711		
1-5.C	-3536+02	2239+02 .1148+01	.2881-09	6743-00	1-5+C	.5037+02	6862+02	3300+02	1704+01	9655-00
1-5.5	.8009+01	.1280+02 .4821+01	.5114-00	.1525-01	1-5+5	.1326+02	•8732+02	4498+01	9908+01	1007+02
		′0.75)R			_			(0.75)R		
0 1-5,C	.1362+03 .2407+02	1366+022206+01	.2335+01	4866-00	1-5.C	.1023+03 .8509+01	2020+02	2098+02	.1303+02	4636+02
1-5,5	1074+02	.4110+01 .9836+01	•9355=01	1675+01	1-5.5	•3690+02	•9218+01		2262+02	.7681+01
		(0.85)R						(0.85)R		
0	·1279+03				.0	.8614+02				
1-5+C	7773+01	~.4905+012152+01	.2263+01	7189-01		1541+02	+3360+01	5982+01 .3371+02	.1075+02 -:1557+02	.4182+02 .8025+01
1-5,5	.7763+01	~.3095+01 .8643+01	.1535-00	1615+01	1-5.5	•293 <del>9</del> +02	3019+02	.33/1402		.8023741
N.C OR	5	AUVANCE RATIO: MU = 0.5			N+C OR	5	ADVANCE	RATIO: MU = 1.4		
	-						ADVANCE	WII. HO + 114		
0	3385+05	(0.0)R			_			(0.0)R		
	3392+02	·1915+03 -·1498+02	.4958+01	.3026-00	0 1-5,c	2309+05	- 7-50			
1-5.5	.4364+03	4896+022044+02	1098+02	1288+02	1-5,5		7056+02 .4084+03		1476+03 6055+02	.7317+02 .6650+02
		(0.14)R			- 0.0	10022100	***************************************	(0.14)R	-,0053702	.0050+02
. 0	-1496+04			0-	0	3354+04				
1-5,C 1-5,S	.5774+01 .2042+02	.1098+01 .1824+01 .1682-004545-00	3121-00 .5164-00	.1733-00 .1122+01			•4362+01		•5171 <del>-</del> 00	6592+01
1-5/3	*2042702	-1682-004545-00 (0-325)R	*2104-00	.1155401	1-5:5	.36u0+0 <u>2</u>	7360+02	~.3873+01 (0.325)R	6394+01	1599+02
a	•7452+02	(0.025)			٥	1317+03		(U-325)K		
1-5.C	·1777+02	~-1788+02 -5141+01	8743-00	.1538-00	1-5,C	4815+02	-2608+02	+4814+01	.4928+02	-,29 <del>69+</del> 02
1-5.5	+2730+01	.6318+01 .2536+01	.2017+01	.3030+01	1-5,5	3766+02	1096+03	3001+02	.1327+02	3087+02
0	+1008+03	(0.55)R						(0.55)R		
1-5,C	.1008+03 .2491+02	2340+02 .3808+01	.3231-00	6312-00	0 1-5•C	•6252+02				
1-5,5	•7207+01	·1079+02 ·8600+01	.1224+01	.2290-00	1-5.6	•7309+02 ••1063+02	•2554+02		.3047+02	.3869+01
	,	(0.75)R	*********		1-3/5	1003402	•8690+02	1610+02 (0.75)R	.1821+02	.1885+02
0	1090+03				0	.8127+02				
1-5.0	-2323+02	1988+025979-00	.2192+01	1624+01	1-5.C	1190+02	-2542+02	.1430+02	2567+02	.4541+02
1-5,5	.1060+02	.1249+02 .1420+02 (0.85)R	8131-00	4694+01	1-5,5	-6514+02	4150+02	.4987+02	3322+01	.3900+02
0	.7496+02	.u.851K			0	E840.0-		(0.85)R		
1-5.C	1523+02	1238+021785+01	.2073+01	1412+01		•5868+02 ••4205+82	1693+02	•2427+02	2814+02	.3610+02
						- TEU-TUZ	・エロフコキリだ	• 2961 TUZ		. 3610402
1-5.5	·8274+01	·8958+01 ·1138+02	1190+01	4726+01	1-5,5	.5781+02	8088+02	.4717+02	7851+01	2492+02

## ABL: 9. PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE

#### (H) MP = 0.5 FP = 0.0025 (FOR MU = 0.25,0.4,0.5) FP = 0.00112(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

		r 0	.00112(11)04-42	11 OK 110 - 01	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
N+C OR S	ADVANCE RATIO, MU = '0.25			N.C OR	S	ADVANCE R	ATIO, MU = 0.7		
	(0.0)R				-		(0.0)R		
02311+05	(0.01K			0	2093+05				
		7470 00	4000 00	1-5,C	.1903+03	.4454+03	•1690+03	.1731+03	.1432+03
1-5,C .1123+02	·1290+02 -·1779+01	~.3130-00	6282-02	1-5/5	.3663+03	1827+03	.1730+03	1747+03	1198+03
1-5.5 .1072+03	·1023+022813-00	.6139-00	.4061-01	1-212	*3003+03	1182/403		41141403	.1170403
	(0.14)R			_			(0.14)R		
0 +.3319+04				. 0	3793+04				
1-5:C1589-00	·1487+011578-01	3631-01	5784-01	1-5.C	.2457+02	•5608+02	.2210+02	.1217+02	.5325+01
1-5:5 .1588+02	8006-00 .7711-01	~.1130+00	3287-01	1-5/5	.8067+02	·3556+02	.3919+02	.3685+024	.2809+02
• • • • • • • • • • • • • • • • • • • •	(0.325)R						(0.325)R		
. 01734+03	***************************************			0	-,3123+03				
1-5.C1954+01	9106-00 .5279-00	.2747-01	9109-01	1-5.C	1485+02	5841+02	2123+02	3890+02	3712+02
1-5:5 :1982+01	3781+01 .2075-00	3301-00	6663-01	1-5/5	.3437+02	·1532+02	.1289+02	1110+01	.1438+01
1-3/3 11/01/01	(0.55)R	,,,,,,	15550 -1				(0.55)R		
0 +8040+02	10100711			0	.7559+02				
1-5.C .4723+01	1739+01 .5725-00	.6827-01	.3653-01	1-5.C	3626+01	1014+03	4060+02	3801+02	1755+02
1-5.5 .1081+01	.3817-00 .2450-01	.6776-01	.1571-02	1-5.5	.1807+02	.3615+02	1426+02	5589+02	4989+02
1-3/2 +1001+01	(0.75)R	.0770-01	.13/1-02	- 0.2	*100		(0.75)R		•
0 •7680+02	(0.15)K			.0	.8807+02		(20,0)		
	4.50.00	.7785-01	.1696-00	1-5.C	.1362+02	8760+02	3756+02	1446+02	.1501+02
1-5.C .1036+02	1674+01 -3078-00			1-5,5	2357+01	.4311+02		8291+02	7725+D2
1-5.5 .6710-00	•5262+01 -•2096-00	.5138-00	.8250-01	1-3/3	-,233,401	**311*02	(0.85)R		- AFFESTEL
	(0.85)R			. 0	.4930+02		(U+057K		
. 0 +4227+02					.1123+02	4997+02	2194+02	4504+01	.1473+02
1-5:C .7453+01	1012+01 -1368-00	<b>.</b> 4956-01	.1300-00	1-5·C	.1123+02		2306+02	5437+02	5105+02
1-5/5 .3506-00	•4182+011743-00	.4023-00	.6641-01	1-5.5	4865+01	-2710+02	2306+02	543/+02	2102+05
					_	ADMANCE :	04TTO. HIL = 1 0		
N+C OR S	AUVANCE RATIO: MU = 0.4			N.C OR	5	ADVANCE I	RATIO: MU = 1.0		
P******					-				
	(0.0)R						(0.0)R		
02309+05				0	1759+05				
1-5.C .2090+02	.3405+028069+01	.6923-00	.4365-00	1-5,C	.2594+03	.2210+03	1344+03	.2398+02	3463+02 <sup>r</sup>
1-5.5 .1807+03	·1435+024528+01	.6784-00	1941+01	1-5.5	.7065+03	.2716+02	3757+02	.3379+02	.7996+01
	(0,14)R						(0.14)R		
03315+04	*			0	4095+04				
1-5.C .6529-00	.4394+01 .3523-0D	.2307-00	.2099-00	1-5.C	1958+02	•4468+02	2884+01	1030+01	.9375-00
1-5.5 .2655+02	2686+01 .5220-01	3936-00	.5345-01	1-5/5	1563+03	2573+02	.2371+01	7185+01	.7873-00
1-3/3 12033+02	(0.325)R	-10750-04	13045 41				(0.325)R		
01723+03	(01323///			0	5020+03				
1-5+C1898+01	-·1433+01 ·3249+01	.3060-00	.2548-00		5965+02	1146+02	.5714+02	6074+01	.1674+02
		6924-00	.6257-00	1=5/5	2849+01	-,4066+02		2093+02	9295-00
1-5/5 -2803+01	7502+01 .1458+01 (0.55)R	0924-00	.6257=00	1-3/3	2047401	-14000402	(0.55)R	-12075702	-, 7673-40
	(U+55)R			0			10.5514		
0 +8143+02					.4584+02		EC10100	.700.00	
1-5.C .9189+01	3879+01 .3130+01	.3278-00	2187-01	1-5·c	.4768+01	2739+02	•5618+02	.1790+02	.1082+02
1-5/5 -1292+01	•2909+01 •1245+01	.7122÷00	.2900-00	1-5.5	4090+02	•5092+02	.1251+02	.1371+02	.2648+01
	(0.75)R						(0.75)R		
0 •7744+02				0	.7521+02				
1-5,C .1787+02	4389+01 -1269+01	•1914 <b>-</b> 00	5553-00	1-5,C	.7040+02	2263+02	•2295+02	.3215+02	1264+01
1-5.5 .8862-00	•1397+02         •2921-00	.2024+01	2830-00	1-5.5	3735+02	-1126+03	2504+01	.4049+02	.4903+01
	(0.85)R						(0.85)R		
0 •4260+02				0	.4080+02				
1-5:C -1266+02	2785+01 .4136-00	-9087-01	2668-00	1-5.C	.5143+02	1239+02	.8206+01	.2101+02	2627+01
	•1073+02 <b>~•7585-02</b>	.1498+01	2658-00	1-5:5	2097+02	•7536+02	3808+01	.2783+02	.3219+01
<del></del>	1,000								
N/C OR S	ADVANCE RATIO, MU 0.5			N+C OR		ADVANCE	RATIO: MU = 1.4		
							MATE 110 - 114		
	(0.0)R						(0.0)R		
.02307+05				0	1419+05				
1-5,C .3044+02	·5285+022122+02	1744+01	3048+01	1-5,0	·1005+04	•9787+03	3530+03	.2002+02	8120+02
1-5.5 .2375+03	.7096+011256+02	1262+01	6507+01	1-5.5	.2127+04	4881+03		3812+02	
	(0.14)R					- 4 7002 703	(0.14)R	~+3012+02	.7419+02
03312+04				0	4206+04		T/R		
1-5,C .1721+01	•6809+01 •1937 <b>-</b> 00	.2349-00	.3496-00	-1-5,c	•1647+03	.2380+03	400mm	4049.45	
.1=5.5 .3436+02	5613+016297-00	1224+01	1848-00	1-5.5	+5718+03	·<380+03	•6284+01	1463+02	5807+01
	(0.325)R				+0+40+03	1363+03	4913+02	5113+02	•7 <del>98</del> 5-00
01705+03	10105071			a	_ 7E#2:0-		(0.325)P		
1-5.C1501+01	2194+01 .7027+01	.1017+01	.1332+01		7542+03				
1-5/5 +2557+01	1011+02 .2589+n1	1469+01	.1444+01		1851+03	6294+02		•7417+01	.4714+02
A 375 *E337701	1011+02 -2589+ (0.55)R	17403401	, , , , , , , , , , , , , , , , , , , ,	1-5.6	2098+02	-6524+02		4562+02	3000+02
.08313+02	1013318				F00		(0.55)R		
1-5-0 1703-00	- 5705+04 2405+04				5884+01				
1-5.C .1303+02	5796+01 -7121+01	.8545-00	5640-01	1-5.C	8749+02	1192+03		.1566+03	.8570+02
1-5.5 .7268-00	.6250+01	.1624+01	.8794-0¢	1-5.5	1510+03	.3051+03		.8313+02	.1962+01
	(0.75)R						(9.75)R		
.0 •7840+02				. 0	.8078+02				
1-5.C .2393+02	-·6473+01 ·3291+01	·1963-00	1717+01	1-5,C	.7732+02	6810+02	·1148+03	.2023+03	.7117+02
.1-5:5 -8844-00.	•2258+01 •1717+01	.4452+01	3245-00	1-5.5	1015+03	+3316+03		.1471+03	.3056+02
	(0.85)R			_	•		(0.85)R	4477878	10000102
.0 +4304+02				8	.4812+02				
1-5,C -1681+02	4093+01 -1267+01	8409-02	1378+01	1-5,C	6764+02	3111+02	.4843+02	.1219+03	TOP
1-5.5 -6157-00	·1704+02 ,8089-00	.3283+01	4352-00		4958+02	•1926+03			.3856+02
			,,,,,,			720703	10540445	.9277+02	,2146+02

## TABLE 9. PRECONING TRANSFER COEFFICIENTS FOR A HINGELESS BLADE (I) MP $\Rightarrow$ 0.5 FP = 0.01 (FOR MU = 0.25,0.4,0.5) FP = 0.00447(1+MU)\*\*2 (FOR MU = 0.7,1.0,1.4)

				1044111211101	(1 pit HO = 011111071147			
N/C OR S		ADVANCE RATIO: MU = 6.25			N.C OR S	ADVANCE RATIO: NU = 10.7		
~~~~~	•	(0.0)R				(0.0)R		
0 1-5,¢ 1-5,\$	1199+05 .1089+03 .1186+03	2783+022204+01 -5728+022564+01 (0.14)R	9638+01 2213+01	9209+01 2101+01	01088+05 1-5,C .2302+03 1-5,S .1733+03	7337+02 .7080+02 -4159+034563+02 (0.14)R	5106+01 .4033+02	.3450+02 .55 <del>69+</del> 02
0 1-5,C 1-5,S	4506+04 .8008+01 .4520+02	1107+025580+01 -5719+012298+01	6129+01 2854+01	5467+01 2396+01	04604+04 1-5.C .5468+01 1-5.S .8157+02	4883+01 -3657+02 -9724+02 -9457+01 (0.325)R	.5465+01 .2282+02	.1448+92 .2028+92
0 1-5.C 1-5.S	1157+04 5422+02 .1131+02	(0.325)R 2895+011077+02 2381+023481+01 (0.55)R	6207+01 4163+01	4955+01 3569+01	01411+04 1-5,C1362+03 1-5,S -3050+02	.4669+02 .1128+02 8155+02 .5776+02 (0.55)R	.2115+02 .9946+01	.4380+01 .2346+01
1-5.C 1-5.S	2016+03 4708+02 2335+01	-2353+011161+02 1608+024290+01 (0.75)R	5167+01 2940+01	3582+01 3192+01	03164+03 1-5.C8315+02 1-5.S1181+02	.5576+022706+02 4044+02 .6913+02 (0.75)R	.363 <del>6+</del> 02 .4179+02	.1315+01 .2235+01
	2665+02 1206+02 4954+01	.3553+016426+01 .8354-002833+01 (0.85)R	2274+01 6559-00	1229+01 1398+01	05617+02 1-5.C .9974+01 1-5.S2461+02	-2916+023553+02 -3390+02 .3898+02 (0.85)R	.2804+02 .4499+02	.6119-88 .4394+81
0 1-5.C 1-5.S	6444+01 2253+01 2958+01	.2101+012943+01 .2636+011403+01	9197-00 8422-01	4030-00 5589-00	. 01508+02 1-5.C .1685+02 1-5.S1487+02	•1286+02 -•2054+02 •2810+02 •1790+02	•1450+02 •2529+02	.3019-00 .2760+01
N.C OR S		ADVANCE RATIO: MU = 0.4			N.C OR 5	ADVANCE RATIO: MU = 1.0		
0		(0.0)R			0.000	(0.0)R		
1-5,C 1-5,S	1203+05 .1650+03 .1513+03	4672+02 .2340+02 .1405+039425+01 {0.14}R	1709+01 6232+01	1179+01 1677+01	_09619+04 1-5/C4417+01 1-5/S6331+01	4220+032311+03 -7126+031410+03 (0.14)R	2479+03 .1028+03	6446+02 .5038+02
1-5,C 1-5,S	4522+04 .1756+02 .5809+02	8971+01 .5296+01 .1875+022415-00 (0.325)R	2848-00 2308+01	5234-00 3571-00	04604+04 1-5•C1913+03 1-5•S .2400+01	1520+035111+02 -1802+032325+02 (0-325)R	7270+02 -1032+02	-,1787+02 ,3220+01
1-5,C 1-5,S	1167+04 6973+02 .1375+02	-1540+027779+01 4950+02 ,4323+01 (0.55)R	.5380-00 .1216+01	.1934-00 .4703-00	01640+04 1-5,C3470+03 1-5,S9798+01	•3345+02 •6657+02 ••1630+03 •5723+02- (0.55)R	.7195+02 5265+02	.3278+02 -,3043+02
. 0	2049+03				03947+03			
	5701+02 7840+01 2510+02	-2324+021656+02 3389+02 .8438-01 (0.75)R	.5034-00 .6451+01	.1589+01 .7325-00	1-5,C2173+03 1-5,S5955+02	.8871+02 .5549+02 1201+03 .4602+02 (0.75)R	.1484+03 3685+02	.4314+82 2463+82
1-5.C 1-5.S	9860+01 1178+02	-1470+021335+02 -2317+013580+01 (0.65)R	.1311-00 .6691+01	.1745+01 .4638-00	1-5.C2245+02 1-5.56194+02	.5001+02 .2612+01 .1855+02 .54+8+01 (0.85)R	.1051+03 6312-09	.2198+82 -,4789+81
1-5.5	5023+01 .5487-00 6894+01	.7088+017027+01 .5955+012464+01	.2490-01 .3757+01	.9920-00 .2235-00	06595+01 1-5+C .9687+01 1-5+S3415+02	.2227+024924+01 .2698+021833+01	.5218+02 .3912+01	.9493+81 2972-86
N.C OR	S	ADVANCE RATIO: MU = 0.5			N+C OR S	ADVANCE RATIO, MU = 1.4		
α	1224+05	(0.0)R			09244+04	(0.0)R		
1-5,C 1-5,S	.1953+03 .1807+03	.1059+02 .9682+02 .2599+03 .3721+02 (0.14)R	.4572+02 .4757+02	.3910+02 .4415+02	1-5/C5459+03 1-5/S9842+03	9206+034563+03 -1165+041531+03 (0.14)R	2216+03 5800+02	-,2928+83 -,2494+83
1-5,C 1-5,S	.1805+82 .7320+02	.7251+01 .2463+02 .5686+02 .2108+02 (0.325)R	.1011+02 .1467+02	.7680+01 .1421+02	04958+04 1-5:05625+03 1-5:55125+03	4351+031671+03 .3292+033537+02 (0.325)R	1025+83 4086+82	7882+82 -,9763+82
1-5,C 1-5,S	8490+02 .24 <u>02</u> +02	-8079+012261+02 4614+02 -1791+02 (0.55)R	1170+02 .1498+01	1103+02 1542+01	1-5,C5971+03 1-5,S2197+03	8952+02 .1391+02 2732+03 .3568+02 (0.55)R	5915+01 5625+01	.9452+82 .4595+82
1-5.C 1-5.S	2115+03 6014+02 3437+01	•7352+01 -•4878+02 ••2296+02 •1249+02 (0.75)R	1797+02 .7913+01	1355+02 6984+01	64972+03 1-5+C3069+03 1-5+S1506+03	.3300+022961+02 2475+038000+01 (0.75)R	.4 <del>99</del> 7+02 .7000+82	.1271+83 .1472+83
1-5/5	2361+02 9187-00 1239+02	•3625+01	1101+02 .1111+02	6430+01 5105+01	03743+02 1~5.C1486+02 1~5.\$1081+03	-1954+027677+02 1459+024265+02 (0.85)R	.4147+92 .7614+92	.9934+82 .1147+83
1-5.C 1-5.S	3409+01 .7075+01 7829+01	.1571+011982+02 .1648+02 .1281+01	5231+01 .6653+01	-,2659+01 -,2566+01	0 .1070+02 1-5,C .2239+02 1-5,S5599+02	•7280+014763+02 •1960+022717+02	.2111+02 .4182+02	.2426+82 .5816+82